

MENTAL MATHS

QUESTION BANK **4**
CLASS
2025-2026



DIRECTORATE OF EDUCATION, GOVT. OF N.C.T. OF DELHI

MENTAL MATHS QUESTION BANK

CLASS 4

2025-26

**DIRECTORATE OF EDUCATION
GOVT. OF NCT OF DELHI**

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MESSAGE

"An equation means nothing to me unless it expresses a thought of God!"
– Srinivasa Ramanujan

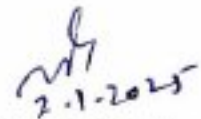
Dear Students,

It is truly inspiring to see the journey of the Mental Maths Project, which has now become a beacon of academic excellence. This initiative stands out as one of the few purely academic projects of its kind undertaken by the Directorate of Education, and its success is a matter of great pride for all of us.

I still vividly remember attending the Mental Maths Quiz last year, where I was amazed by the speed and accuracy with which students answered challenging questions. It was a moment of immense joy and a testament to how this project is shaping bright and confident minds.

The Question Bank is a result of the collective hard work and dedication of many. I extend my heartfelt gratitude to the talented writers who have developed this resource with great care and creativity. I also commend the Core Team of Mental Maths Project for their vision and relentless efforts in taking this project to new heights. A special word of appreciation goes to the Director (Education), whose leadership and commitment have been instrumental in driving this initiative forward.

Dear students, this book is not just a tool for practice – it is an opportunity to challenge yourself, enhance your logical thinking, and build a strong foundation in mathematics. I wish you all great success in your mathematical journey!


2.1.2025
(Ashok Kumar)

VEDITHA REDDY, IAS

Director, Education & Sports



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MESSAGE

It is with a mixed sense of responsibility and pride that I present to you the Mental Maths Question Banks 2025-2026.

I believe, working through the myriad questions in this book will not only enhance your problem-solving skills but also help you build a strong foundation in logical thinking and analytical reasoning. I urge each one of you to make the best use of this invaluable resource and challenge yourselves to achieve new milestones in your quest for mastery over Mental Maths!

I extend my heartfelt congratulations to our dedicated Subject Experts for curating such a well-structured and comprehensive Question Banks. Your expertise and hard work have made this resource immensely beneficial for our students.

I also take this opportunity to applaud the efforts of the Core Team of Mental Maths Project, the District Coordinators, HOSs and all those who have joined this team recently for their unwavering commitment. Your collaborative efforts have been instrumental in its continued success.

Additionally, I am delighted to announce that from this academic session, the Mental Maths Question Banks have been extended to include junior-level students from Classes 3 and 4. This marks a significant step forward in nurturing mathematical abilities from an early age.

Let us continue to strive for excellence and make the most of this opportunity. Together, we can achieve remarkable success!

(VEDITHA REDDY, IAS)



संदेश

मेंटल मैथ्स केवल गणितीय सूत्रों के उपयोग में प्रवीणता का ही नाम नहीं है, यह बौद्धिक कौशल का पोषक व परिचायक भी है। क्योंकि आप कितने ही सूत्र कंठस्थ कर लें, यदि बुद्धि ने सही समय पर सही सूत्र कार्यान्वित नहीं किया तो सूत्र याद होने पर भी उसका लाभ नहीं मिल सकेगा। यह वैसा ही होगा जैसे एक सैनिक के पास सटीक मार करने वाला शस्त्र तो उपलब्ध है, किन्तु वह उसे चलाना नहीं जानता।

मेंटल मैथ्स की पूरी टीम का प्रयास प्रारम्भ से यही रहा है कि हमारे विद्यार्थी गणित को समझें; उसके सूत्रों में निहित प्रक्रियाओं व सोपानों को जानें और उन्हें अपने बुद्धि कौशल से प्रचालित करें। इस पूरी प्रक्रिया में वे तर्क-संगत ढंग से सोचना भी सीखें और गणित के प्रश्नों के हल खोजते-खोजते, जीवन के प्रश्नों के हल भी सुगमतापूर्वक निकालने लगें।

मेंटल मैथ्स परियोजना की शिशु पौध जो श्रीमती अनीता सेतिया जी के कर कमलों द्वारा रोपी गई और श्रीमती रेणु शर्मा व डॉ. अफशा यास्मीन जैसे अकादमिक दिग्गजों द्वारा सिंचित की गई। आज एक दृष्ट-पुष्ट वृक्ष बनने को तत्पर है। विस्तार व विकास की इस यात्रा में परियोजना की पूरी टीम का योगदान अविस्मरणीय है।

अनुदान प्राप्त विद्यालयों को परियोजना में लाना हो या फिर परियोजना को आगे ग्यारवीं-बारहवीं कक्षाओं तक विस्तार देना हो या कि फिर कक्षा तीन और चार के नन्हें-नन्हें विद्यार्थियों को भी मेंटल मैथ्स से जोड़ना हो- इस टीम ने गणित की सेवा को कभी भी 'सार्वजनिक' कार्य नहीं समझा। विशेषकर, कोर टीम के सभी सदस्य और हमारे संयोजक तो प्रोजेक्ट में ऐसे जुटे हैं, जैसे कि यह उनका व्यक्तिगत और पारिवारिक कार्य हो।

मगर अभी भी कई कार्य करने शेष हैं। प्रोजेक्ट की आगामी योजनाओं में प्रधान अध्यापकों के संग चर्चा, प्राथमिक अध्यापकों का कौशल निर्माण, माध्यमिक तथा उच्चतर माध्यमिक स्तर के अध्यापकों का प्रशिक्षण आदि सम्मिलित हैं जिससे कि मेंटल मैथ्स को वास्तव में कक्षा के स्तर तक उतारा जा सके।

आशा करता हूँ कि यह टीम इन सभी ज़िम्मेदारियों का इसी ईमानदारी और निष्ठा से सफल निर्वाहन करेगी।


04/3/25
(विकास कालिया)

CONSTITUTION OF INDIA

¹[PART IV A

FUNDAMENTAL DUTIES

Article 51A. Fundamental duties. — It shall be the duty of every citizen of India—

- a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- b) to cherish and follow the noble ideals which inspired our national struggle for freedom;
- c) to uphold and protect the sovereignty, unity and integrity of India;
- d) to defend the country and render national service when called upon to do so;
- e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;
- f) to value and preserve the rich heritage of our composite culture;
- g) to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures;
- h) to develop the scientific temper, humanism and the spirit of inquiry and reform;
- i) to safeguard public property and to abjure violence;
- j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement;]

²[(k) who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between the age of six and fourteen years.]

1. Ins. by the Constitution (Forty-second Amendment) Act, 1976, Sec. 11 (w. e. f. 3-1-1977).

2. Ins. by the Constitution (Eighty-sixth Amendment) Act, 2002, Sec. 4 (w. e. f. 1-4-2010).

भारत का संविधान

1[भाग 4 क

नागरिकों के मूल कर्तव्य

अनुच्छेद 51क. मूल कर्तव्य - भारत के प्रत्येक नागरिक का यह कर्तव्य होगा कि वह -

- (क) संविधान का पालन करे और उसके आदर्शों, संस्थाओं, राष्ट्रध्वज और राष्ट्रगान का आदर करे ;
- (ख) स्वतंत्रता के लिए हमारे राष्ट्रीय आंदोलन को प्रेरित करने वाले उच्च आदर्शों को हृदय में संजोए रखे और उनका पालन करे ;
- (ग) भारत की संप्रभुता, एकता और अखंडता की रक्षा करे और उसे अक्षुण्ण रखे ;
- (घ) देश की रक्षा करे और आह्वान किए जाने पर राष्ट्र की सेवा करे ;
- (ङ) भारत के सभी लोगों में समरसता और समान भ्रातृत्व की भावना का निर्माण करे जो धर्म, भाषा और प्रदेश या वर्ग पर आधारित सभी भेदभाव से परे हो, ऐसी प्रथाओं का त्याग करे जो स्त्रियों के सम्मान के विरुद्ध है ;
- (च) हमारी सामासिक संस्कृति की गौरवशाली परंपरा का महत्व समझे और उसका परिरक्षण करे ;
- (छ) प्राकृतिक पर्यावरण की, जिसके अंतर्गत वन, झील, नदी और वन्य जीव हैं, रक्षा करे और उसका संवर्धन करे तथा प्राणि मात्र के प्रति दयाभाव रखे ;
- (ज) वैज्ञानिक दृष्टिकोण, मानववाद और जनार्जन तथा सुधार की भावना का विकास करे ;
- (झ) सार्वजनिक संपत्ति को सुरक्षित रखे और हिंसा से दूर रहे ;
- (ञ) व्यक्तिगत और सामूहिक गतिविधियों के सभी क्षेत्रों में उत्कर्ष की ओर बढ़ने का सतत प्रयास करे, जिससे राष्ट्र निरंतर बढ़ते हुए प्रयत्न और उपलब्धि की नई ऊंचाइयों को छू ले ;]
- ²[(ट) यदि माता-पिता या संरक्षक है, छह वर्ष से चौदह वर्ष तक की आयु वाले अपने, यथास्थिति, बालक या प्रतिपाल्य के लिए शिक्षा के अवसर प्रदान करे ।]

1. संविधान (ब्यालीसवां संशोधन) अधिनियम 1976 की धारा 11 द्वारा (3-1-1977 से) अंतः स्थापित ।

2. संविधान (छियासीवां संशोधन) अधिनियम 2002 की धारा 4 द्वारा (1-4-2010 से) अंतः स्थापित ।

THE CONSTITUTION OF INDIA

PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a ¹**[SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC]** and to secure to all its citizens:

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity;

and to promote among them all

FRATERNITY assuring the dignity of the individual and the ²[unity and integrity of the Nation];

IN OUR CONSTITUENT ASSEMBLY this twenty- sixth day of November, 1949, do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.

-
1. Subs. by the Constitution (Forty-second Amendment Act, 1976, Sec 2, for "SOVEREIGN DEMOCRATIC REPUBLIC" (w. e. f. 3.1.1977)
 2. Subs. by the Constitution (Forty-second Amendment Act, 1976, Sec 2, for "Unity of the Nation" (w. e. f. 3.1.1977)

भारत का संविधान

उद्देशिका

हम, भारत के लोग, भारत को एक ¹[संपूर्ण प्रभुत्व-संपन्न समाजवादी पंथनिरपेक्ष लोकतंत्रात्मक गणराज्य] बनाने के लिए, तथा उसके समस्त नागरिकों को :

सामाजिक, आर्थिक और राजनैतिक न्याय,

विचार, अभिव्यक्ति, विश्वास, धर्म

और उपासना की स्वतंत्रता,

प्रतिष्ठा और अवसर की समता

प्राप्त कराने के लिए,

तथा उन सब में

व्यक्ति की गरिमा और ²[राष्ट्र की एकता और

अखंडता] सुनिश्चित करने वाली बंधुता

बढ़ाने के लिए

दृढसंकल्प होकर अपनी इस संविधान सभा में आज तारीख 26 नवंबर

1949 ई. (मिति मार्गशीर्ष शुक्ला सप्तमी, संवत् दो हजार छह विक्रमी)

को एतद्वारा इस संविधान को अंगीकृत, अधिनियमित और

आत्मार्पित करते हैं ।

1. संविधान (बयालीसवां संशोधन) अधिनियम 1976 की धारा 2 द्वारा (3.1.1977 से) "प्रभुत्व-संपन्न लोकतंत्रात्मक गणराज्य" के स्थान पर प्रतिस्थापित ।

2. संविधान (बयालीसवां संशोधन) अधिनियम 1976 की धारा 2 द्वारा (3.1.1977 से) "राष्ट्र की एकता" के स्थान पर प्रतिस्थापित ।

ACKNOWLEDGEMENT
SUBJECT EXPERTS & CONTENT DEVELOPMENT TEAM
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STATE LEVEL MENTAL MATH QUIZ COMPETITION RESULT 2024-2025
LEVEL-I
REGION – SOUTH (1st POSITION)

S. No.	CLASS	NAME OF STUDENT	FATHER'S NAME	STUDENT ID	SCHOOL NAME	SCHOOL CODE	NAME OF GUIDE TEACHER
1	V	ATHOM SINHA	AJIT KUMAR GAUTAM	20180247486	ASOSE, SEC-22, DWARKA	1821282	KALPNA CHOUDHARY
2	V	PARTH SHARMA	RATAN LAL	2024105900	SBV FATEHPUR BERI	1923014	ABHILASHA YADAV
3	V	PRATEEK KUMAR	CHANDAN PRASAD BARNWAL	20190089207	SMAS SKV MAHIPALPUR	1720032	MAMTA

REGION – WEST (2nd POSITION)

S. No.	CLASS	NAME OF STUDENT	FATHER'S NAME	STUDENT ID	SCHOOL NAME	SCHOOL CODE	NAME OF GUIDE TEACHER
1	V	RAJSHIVANSH MUDGAL	YATINDER MUDGAL	20180227009	AES NTR RAO MEMORIAL SSS, JANAKPURI	1618080	ALLADA SEKHARA RAO
2	V	AARAV N BINISH	BINISH C N.	20200059071	KERALA SSS, M-BLOCK, VIKASPURI	1618081	ANUPAMA
3	V	DIVAKAR SHARMA	BABLU KUMAR SHARMA	20230219887	SV KAKROLA	1618009	ANIL KUMAR

REGION –EAST (3rd POSITION)

S. No.	CLASS	NAME OF STUDENT	FATHER'S NAME	STUDENT ID	SCHOOL NAME	SCHOOL CODE	NAME OF GUIDE TEACHER
1	V	HEMANG	TEJ PRAKASH	20200233510	ABBSS BALBIR NAGAR SHAHDARA	1105135	SUNITA
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3	V	ANIKET KUMAR	AMIT KUMAR	20230168417	SKV KAMLA NEHRU JANGPURA	1924037	REKHA

REGION -NORTH (4th POSITION)

S. No.	CLASS	NAME OF STUDENT	FATHER'S NAME	STUDENT ID	SCHOOL NAME	SCHOOL CODE	NAME OF GUIDE TEACHER
1	V	AARADHYA MAHESHWARI	VIPUL KUMAR	20180262795	SOE SECTOR-23, ROHINI	1413342	NITIKA MANN
2	V	MANNU	OM PRAKASH	20210124014	GSBV BANKNER	1310168	NAVEEN
3	V	KALPANA UPADHYAY	HEMANT UPADHYAY	20210296989	SKV, DHAKKA	1309025	ANNU LAMBA

REGION –CENTRAL (5th POSITION)

S. No.	CLASS	NAME OF STUDENT	FATHER'S NAME	STUDENT ID	SCHOOL NAME	SCHOOL CODE	NAME OF GUIDE TEACHER
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2	V	DHAIRYA	SATYA PRAKASH	20200067635	SSLT GUJRAT SR. SEC. SCHOOL,	1207147	MEENAKSI MITTAL
3	V	ADITYA KUMAR	AJAY KUMAR JHA	20200211023	RPSV (SINDHI) NEW RAJENDIR NAGAR	2128032	ROHIT

MENTAL MATHS QUIZ COMPETITIONS SCHEDULE

SESSION 2025 - 2026

**DIRECTORATE OF EDUCATION
GOVT OF NCT OF DELHI**

❖	Practice to students from Question Bank	:	01.04.2025 to 27.09.2025
❖	School Level Quiz Competitions	:	16.10.2025 to 31.10.2025
❖	Cluster Level Quiz Competition	:	03.11.2025 to 10.11.2025
❖	Zonal Level Quiz Competition	:	18.11.2025 to 25.11.2025
❖	District Level Quiz Competition	:	02.12.2025 to 08.12.2025
❖	Regional Level Quiz Competition	:	26.12.2025 to 31.12.2025
❖	State Level Quiz Competition	:	16.01.2026 to 31.01.2026

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CHAPTER-1

PLAY WITH NUMBERS

Points to Remember:

➤ Indian Place Value System:-

Place Value Chart

Periods	Lakhs		Thousands		Ones		
Places	Ten Lakhs	Lakhs	Ten Thousands	Thousands	Hundreds	Tens	Ones
Place Value	10,00,000	1,00,000	10,000	1000	100	10	1
No. of digits	7	6	5	4	3	2	1

➤ Face Value:-

Face value of a digit in a numeral is the value of the digit itself, whatever place it occupies in the place value chart.

For example:

The face value of 4 in 1435 and 1345 is 4 only.

➤ **Place Value:-**

Place value of a digit in a numeral depends on the place it occupies in the place value chart.

**Place value of a digit = (Face value of the digit) ×
(Value of the Place)**

For example:

The place value of 4 in 1435 is 400

i.e. $4 \times 100 = 400$

and place value of 4 in 1345 is 40.

➤ **The place value of Zero is always '0' irrespective of the place it occupies.**

➤ **Even Number:-**

An Even Number is a number which is completely divisible by 2. If the number at one's place is 0, 2, 4, 6 or 8, then that number is an even number.

For example: 18, 36, 24, 40, 82 etc.

➤ **Odd Number:-**

An Odd Number is a number which is not completely divisible by 2. If the number at one's place is 1, 3, 5, 7 or 9, then that number is an odd number.

For example: 13, 41, 55, 69, 97 etc.

➤ **Predecessor:**

The predecessor of a number is 1 less than the number
i.e. (Number - 1)

For example:

Predecessor of 54 is $54 - 1 = 53$

➤ **Successor:**

The successor of a number is 1 more than the number
i.e. (Number + 1)

For example:

Successor of 129 is $129 + 1 = 130$

➤ **Greatest & Smallest Numbers:-**

Number of digits	Smallest Number	Greatest Number
1	0 or 1	9
2	10	99
3	100	999
4	1000	9999

QUESTIONS:

1. What is the successor of 59?
2. What is the greatest 5 digit number?
3. Find the place value of 6 in 26594.

4. Find the largest 2 digit even number.
5. How many hundreds make two thousand?
6. How many digit number do we get, if we add 1 to the greatest 3 digit number?
7. Find the value of a , if $800 + a + 5 = 845$.
8. Find the smallest odd number between 30 and 35.
9. Find the value of x , if $10 \times 2 \times 0 = x$.
10. Find the sum of 10 and its successor.
11. How many tens make six hundred?
12. Find the place value of 0 in 76038.
13. Find the number which is 10 greater than the smallest three digit number.
14. Find the face value of 5 in 65879.
15. What number must be added to 121 to make it 200?
- [16-19] Find the value of a :
 16. $636 + 126 = a + 700$
 17. $4285 - 1000 = 2000 + a$
 18. $90 + 500 + 55 = 555 + a$
 19. $20 \times a + 15 = 100 + 15$
20. Find the smallest 3 digit odd number.
21. How many two digit numbers are there in all?
22. 41 added to a number makes 60. Find the number.

- 23. How many digits are there in 66 lakhs?**
- 24. Find the smallest 4 digit odd number.**
- 25. Find the number that must be subtracted from 128 to make it the largest 2 digit number.**
- 26. How many hundreds are there in 9655?**
- 27. How many digits are there in 2 lakhs?**
- 28. How many tens are there in 245?**
- 29. Find the sum of place value and face value of 6 in 25678.**
- 30. Find the smallest odd number having four tens.**
- 31. How many hundreds are there in 5129?**
- 32. Find the number which is 50 less than the greatest 3 digit number.**
- 33. Find the difference of place value and face value of 8 in 94850.**
- 34. Find the difference between the greatest 2 digit number and smallest 2 digit number.**
- 35. Find the difference of the place value of 3's in 54332.**
- 36. Find the number 10 less than the successor of 93.**
- 37. What must be added to 9946 to make the smallest 5 digit number?**
- 38. How many thousands will make six lakhs?**

- 39. Find the predecessor of the smallest 4 digit number.**
- 40. Without repeating any digit, find the largest 4 digit number having '0' at one's place.**
- 41. Find the number 3000 less than 13993.**
- 42. What should be added to 50 tens to make 625?**
- 43. Find the largest 4 digit number divisible by 2.**
- 44. Find the product of the place value of both 2's in 12542.**
- 45. Find the smallest 3 digit number without repeating any digit.**
- 46. Find the sum of place value of 4 and 5 in 24856.**
- 47. What should be subtracted from 521 to get 399?**
- 48. Form a smallest 4 digit number using the digits 8, 2, 9 and 4 only once.**
- 49. What will we get if we add 5 to the place value of 3 in 15347?**
- 50. Find the sum of place values of 3 and 4 in 78345.**

ANSWERS:

Q. No.	Answers	Q. No.	Answers
1	60	16	62
2	99999	17	1285
3	6000	18	90
4	98	19	5
5	20	20	101
6	4	21	90
7	40	22	19
8	31	23	7
9	0	24	1001
10	21	25	29
11	60	26	96
12	0	27	6
13	110	28	24
14	5	29	606
15	79	30	41

Q. No.	Answers	Q. No.	Answers
31	51	41	10993
32	949	42	125
33	792	43	9998
34	89	44	4000
35	270	45	102
36	84	46	4050
37	54	47	122
38	600	48	2489
39	999	49	305
40	9870	50	340

CHAPTER-2

PATTERNS

Points to Remember:

- **Pattern:** A repeated arrangement of numbers, shapes, colours or other symbols that follow a specific rule.
For example: Different type of patterns of dresses, patterns of tiles, designs of doors & walls and designs of curtains & bedsheets etc.

- **Types of Pattern:**

1. **Number Pattern:** When a pattern of numbers follows a specific order according to the rule. A number pattern can have more than one rule in a specific arrangement.
For example: 2, 4, 8, 16, 32

5, 8, 11, 14, 17

2. **Shape Pattern:** In shape pattern we arrange shapes to follow a rule. The pattern can be identified by observing the first few shapes of the given pattern.

For example: ○ ○ △ △ ○ ○ △ △

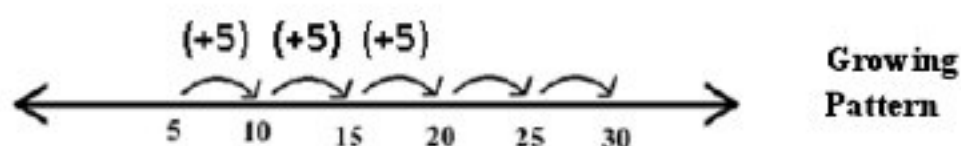
3. **Repeating Pattern:** A repeating pattern is made by repeating a unit of the pattern.

For example: a. △ ○ △ ○ △

b. AA, BB, CC, AA, BB, CC

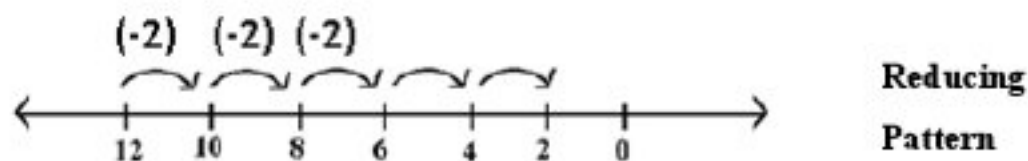
4. **Growing Pattern** : A growing pattern also called an increasing pattern, is a pattern in which one or more elements of the sequence or arrangement increases repeatedly.

For example:-



5. **Reducing Pattern**: Reducing pattern also called a decreasing pattern, is a pattern in which one or more elements of the sequence or arrangement decreases repeatedly.

For example:-

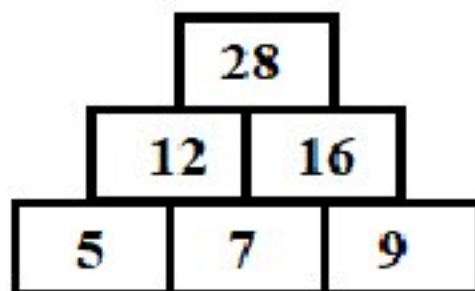


6. **Number Towers**: Numbers can also be arranged as a tower.

Here, $5 + 7 = 12$,

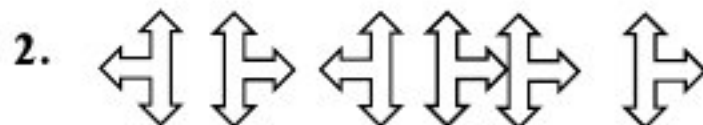
$7 + 9 = 16$

and $12 + 16 = 28$



QUESTIONS:

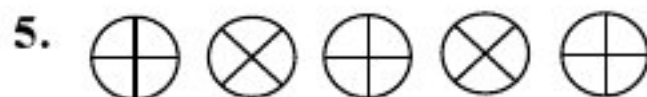
[1-4] Look at the following sequences & identify whether they form a repeating pattern or not.



3. 1 2 3 4 1 2 3 4 1 2 8 4

4. A B C X Y Z A B C X Y Z A B C X Y Z

[5-8] Complete the following patterns:



6. A B C A B C _____

7. 0 1 2 0 1 2 _____



[9-12] Complete the following number patterns:

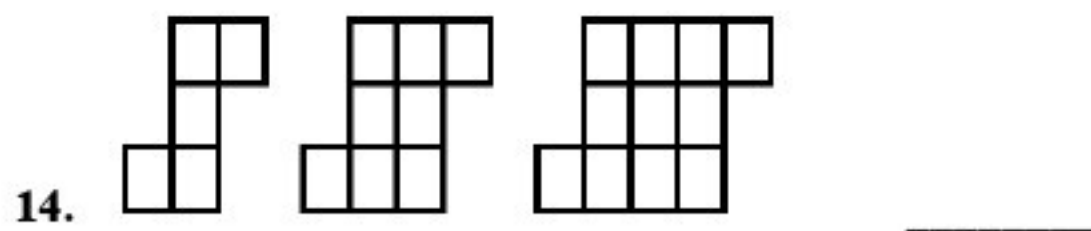
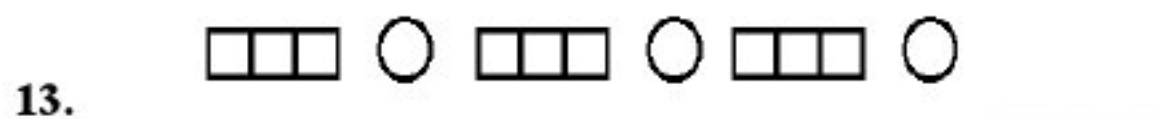
9. 1, 3, 5, 7, 9, 11, _____

10. 10, 8, 10, 8, 10, 8, 10, _____

11. 10, 20, 30, 40, 50, 60, 70, _____

12. 265, 260, 255, 250, 245, _____

[13-14] Complete the following shape patterns.



[15-18] Find the next number of the following patterns:

15. 13, 26, 39, 52, _____

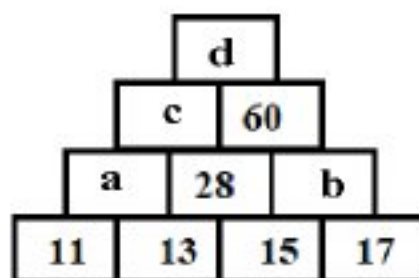
16. 100, 90, 80, 70, _____

17. 34, 27, 20, 13, _____

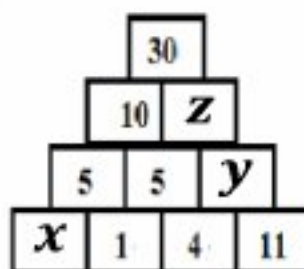
18. 7, 12, 17, 22, _____

[19-20] Complete the following number towers:

19.



20.



[21-22] Complete the following patterns:

21. 8, 14, 20, ____, 32 ____, 44

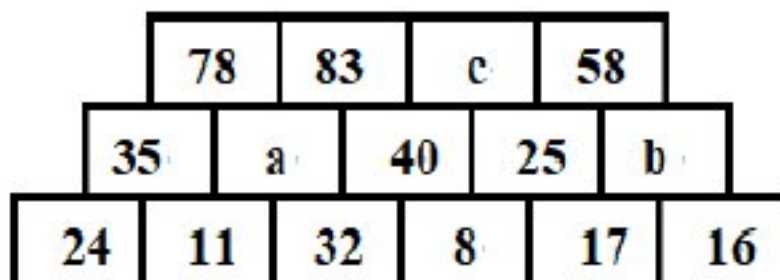
22. I, H, G, F, ____, D, C, ____, A

23. Observe the following patterns and find the number which is wrong in the pattern.

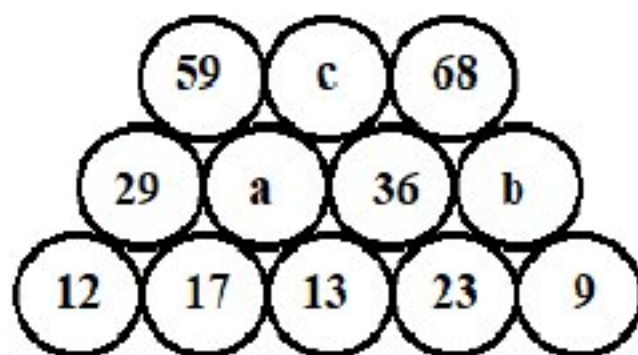
15, 19, 24, 27, 31

[24-25] Complete the following number towers:

24.



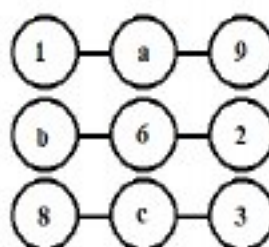
25.



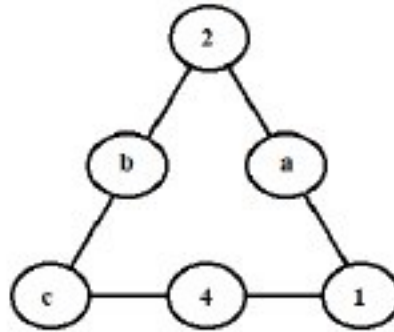
26. Fill the blank boxes using a, b or c in such a way that no alphabet is repeated either horizontally or vertically.

	c	
b		
	b	

27. Find the values of a, b and c such that sum of numbers in each horizontal line is 15.

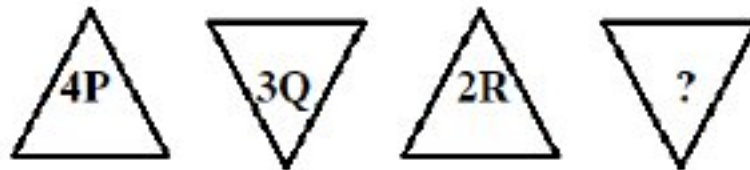


28. Find the values of a, b and c such that numbers on each side of triangle add up to 9.

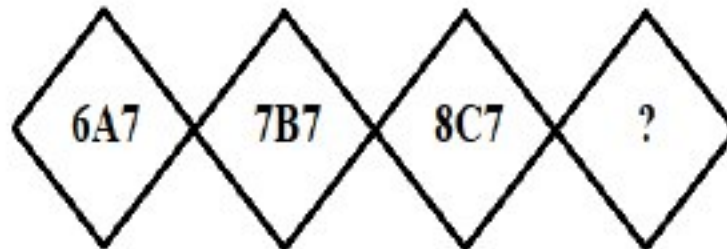


[29-33] Observe the pattern and complete it:

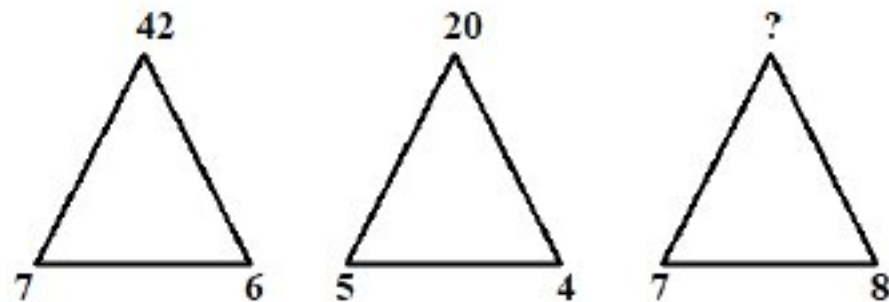
29.



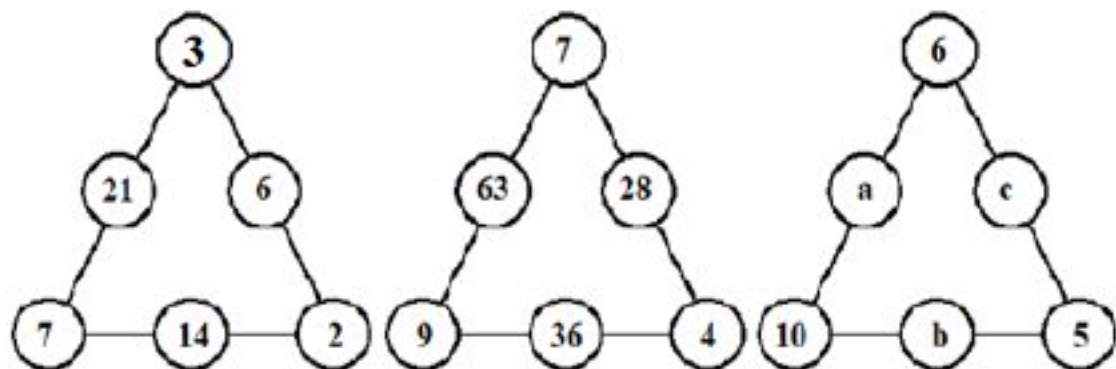
30.



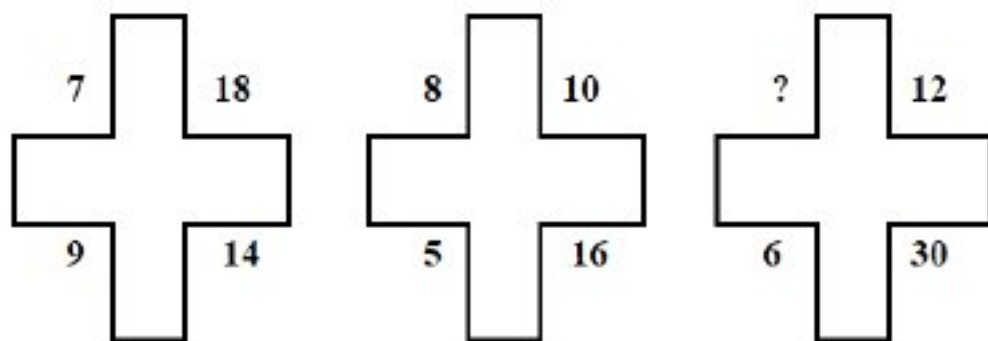
31.



32.



33.



[34-37] Find the interval of increase or decrease for the given patterns:

34. 2, 4, 6, 8, 10, 12, 14.....,

The numbers are increasing by _____.

35. 45, 40, 35, 30, 25, 20.....,

The numbers are decreasing by _____.

36. 5, 10, 15, 20, 25, 30.....,

The numbers are increasing by _____.

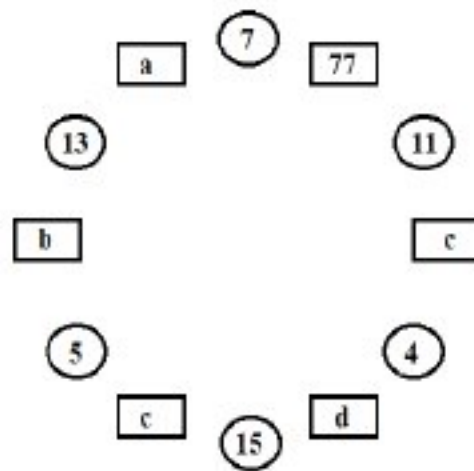
37. 27, 24, 21, 18, 15, 12.....,

The numbers are decreasing by _____.

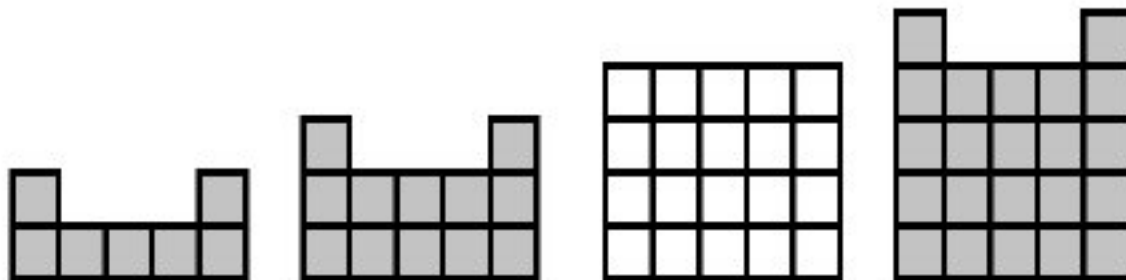
38. In the pattern formed by writing the numbers in each



by multiplying the numbers on both sides of the rectangular box, find the value of a, b, c and d.



39. Shade the empty grid to complete the pattern:



[40-45] A = 1, B = 2, C = 3, X = 24, Y = 25, Z = 26.

The association of each alphabet to a number is shown above. Use this association to find the code for the underlined words. For example:

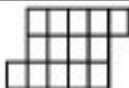
T	A	B	L	E
20	1	2	12	5

TABLE – 2012125

40. I LOVE MY DOG.

41. MY NAME IS ASHISH.
42. I LIKE MANGOES.
43. I STUDY IN SCHOOL.
44. MATHS IS MY FAVOURITE SUBJECT.
45. MY HOBBY IS DANCING.
46. A florist set up a new stall of flowers. She sold 5 flowers on the first day, 8 flowers on the second day and 11 flowers on the third day. If this pattern continues, how many flowers will she sell on the fourth day?
47. Bhavika was arranging her toy cars in rows. The first row had 4 cars, the second row had 8 cars and the third row had 12 cars. Then find how many cars will the fifth row have if the same pattern is followed?
48. An apple tree was 3 m tall in the year 2018. Every year it grows by 1 m. How tall it was in the year 2024?
49. There are 75 books in 1st shelf, 82 books in 2nd shelf , 96 books in 3rd shelf, then how many books will be there in 5th shelf according to this pattern?
50. Meghna bakes 9 pies in August, 15 pies in September, 21 pies in October then how many pies will Meghna bake in the month of February next year?

ANSWERS:

Q. No.	Answers	Q. No.	Answers									
1	Yes	16	60									
2	No	17	6									
3	No	18	27									
4	Yes	19	a= 24, b= 32,c= 52, d= 112									
5		20	a= 4y= 15, z=20									
6	A	21	26, 38									
7	0	22	E, B									
8		23	24									
9	13	24	a) 43, b) 33, c) 65									
10	8	25	a) 30, b) 32, c) 66									
11	80	26	<table><tr><td>a</td><td>c</td><td>b</td></tr><tr><td>b</td><td>a</td><td>c</td></tr><tr><td>c</td><td>b</td><td>a</td></tr></table>	a	c	b	b	a	c	c	b	a
a	c	b										
b	a	c										
c	b	a										
12	240	27	a = 5, b = 7, c = 4									
13		28	a = 6, b = 3, c = 4									
14		29	1S									
15	65	30	9D7									

Q. No.	Answers	Q. No.	Answers
31	56	41	11989198
32	60, 50, 30	42	13114715519
33	15	43	1938151512
34	2	44	61221521189205
35	5	45	411439147
36	5	46	14
37	3	47	20
38	91,65,75,60,44	48	9 metre
39		49	145
40	1215225	50	45

CHAPTER-3

MULTIPLICATION AND DIVISION

Points to Remember:

➤ **Multiplication and Tables :**

● **Multiplication :**

Symbol of Multiplication : ‘ $\times$ ’

Multiplication is “Repeated Addition ”. It means we can write numbers in multiplicative form if the same number is added each time.

For example: $3 + 3 = 6$

This is same as: $3 \times 2 = 6$

● **Multiplication Rules**

- **When a number is multiplied by 1, the product is the number itself.**

For example: $5 \times 1 = 5$

- **When a number is multiplied by 0, the product is always zero.**

For example: $8 \times 0 = 0$

- Any two numbers multiplied together in any order, gives the same product.

For example: $4 \times 6 = 6 \times 4 = 24$

- **Multiplication Tables**

In a sweets box, the Ladoos are packed as shown in the picture.



There are 3 Rows with 4 Ladoos each.

So, total Ladoos = $4 \times 3 = 12$

- **Making Tables**

For example: Making the table of 8. Using the table of 3 and 5.

Table of 3 + Table of 5 = Table of 8

3	+	5	=	8
6	+	10	=	16
9	+	15	=	24

- **Multiples:** Multiple of a number is obtained by multiplying a number by another number.

For example- Multiples of 2 are obtained by multiplying 2 with 1,2,3,4 and so on.

Multiples of 2 are 2, 4, 6, 8, 10 and so on.

➤ **Division and Sharing**

- **Symbol of Division : $\div$**

Division is “Repeated Subtraction “. It means we can write numbers in the division form if the same number is subtracted each time and as many times it is subtracted is the answer.

For example: 12 Toffees are distributed equally among 3 children. How many toffees one child will get?

Child 1

4

Child 2

4

Child 3

4

Or we can write it this way,

$$12 \div 3 = 4$$

$$\Rightarrow 12 - 3 = 9$$

$$\Rightarrow 9 - 3 = 6$$

$$\Rightarrow 6 - 3 = 3$$

$$\Rightarrow 3 - 3 = 0$$

- **Division Rules:**

- When a number is divided by 1, the answer is the number itself.

For example: $17 \div 1 = 17$

- When a number is divided by itself, the answer is 1.

For example: $37 \div 37 = 1$

- When zero is divided by any number the answer is zero.

For example: $0 \div 8 = 0$

- Division by zero is not defined.

➤ **Short Method of Multiplication and Division**

- Multiply by 4, by doubling twice.

For example: 5×4

$$\Rightarrow 5 \times 2 = 10$$

$$\Rightarrow 10 \times 2 = 20$$

- Divided by 4, by halving twice.

For example: $28 \div 4$

$$\Rightarrow 28 \div 2 = 14$$

$$\Rightarrow 14 \div 2 = 7$$

- **Multiply by 5, by multiplying by 10 then halving.**

For example: 8×5

$$\Rightarrow 8 \times 10 = 80$$

$$\Rightarrow 80 \div 2 = 40$$

- **Multiply by 50, by multiplying by 100 then halving.**

For example: 6×50

$$\Rightarrow 6 \times 100 = 600$$

$$\Rightarrow 600 \div 2 = 300$$

Questions:

[1 - 6] Fill in the blanks:

1. **Multiplication refers to repeated**
2. **When we share equally we**
3. **$3 + 3 + 3 + 3 + 3 = \dots \times 5$**
4. **$10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 =$
 $10 \times \dots$**

5. $21 - 3 - 3 - 3 - 3 - 3 - 3 - 3 = 21 \div \dots = \dots$

6. $16 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 = 16 \div \dots = \dots$

7. Find the first two multiples of 5?

[8 - 16] Find the value of x :

8. $x = 8 \times 4$

9. $9 \times 10 = 10 \times x$

10. $12 \times 5 = x \times 6$

11. $x = 1 \times 1 \times 1 \times 1 \times 1 \times 1 \times 1$

12. $x = 24 \div 4$

13. $30 \div 5 = 18 \div x$

14. $44 \div 11 = x \div 8$

15. $x = 1 \div 1 \div 1 \div 1 \div 1 \div 1$

16. $56 \div x = 7 \times 2$

[17-24] Find the value of y :

17. $160 \times 4 = y$

18. $50 \times 12 = y \times 20$

19. $y = 48 \times 102 \times 46 \times 0 \times 200$

20. $192 \div 12 = y$

21. $y = 111 \div 3$

22. $93 \div 31 = y \div 13$

23. $486 \div 6 = 9 \times y$

24. $y = 0 \div 3578$
25. How many days are there in 4 weeks?
26. How many hours are there in 3 days?
27. How many total sides are there in 13 squares?
28. How many bananas are there in 10 dozens?
29. What is the double of 34?
30. What is the double of 75?
31. What is the thrice of 102?
32. What is the half of 126?
33. What is the double of half of 18?
34. What is the half of a double of 22?
35. Suman can make the table of 12 by adding the table of 7 with the table of which number.
36. Kavi can make the table of 27 by adding the table of 13 with the table of which number.
37. Multiply the greatest 1 digit number by 9.
- [38- 41] Complete the following:
38. 11, 22, 33, 44, 55 ,
39. 17, 34, 51, 68, 85 ,
40. 128 , 64 , 32, 16 ,
41. 176 , 88 , 44 , 22 ,
42. If there are 5 pens in a packet, then how many pens are

there in 9 packets?

- 43. A machine makes 35 cakes in an hour. How many cakes will it make in 4 hours?**
- 44. A fruit basket in the supermarket contains 18 fruits. How many fruits are there in 50 baskets?**
- 45. In a school the classroom has the seating capacity of 40 students. How many students can sit in 20 classrooms?**
- 46. If a printer prints 16 sheets in 15 minutes. How many sheets will it print in an hour?**
- 47. 1 Kg of a sweet box contains 28 barfis. How many barfis will there be in 5 Kg?**
- 48. 24 bananas are to be equally distributed among 4 children. How many bananas each child will get?**
- 49. The cost of buying 9 shirts is ₹ 5400. What is the cost of one shirt?**
- 50. Rishi receives a total sum of ₹ 30,000 as salary for working 30 days in an office. What is his one day's salary?**
- 51. Shivangi reads 6 pages of a book every day. If she read 186 pages in total. How many days she took in reading ?**
- 52. A car covers 480 km in 6 hours. Find the distance covered by the car in 1 hour.**

53. The product of two numbers is 270. If one of them is 18, then find the other number.

54. Complete the multiplication pyramid as shown in the example.

For example:

72		
6	12	
2	3	4

b		
20	a	
4	5	6

55. Complete the multiplication grid.

×	6	7	8
1	6	(i)	8
2	12	14	(ii)
3	18	21	(iii)

Answers:

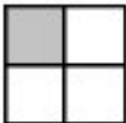
Q. No.	Answers	Q. No.	Answers
1	Addition	16	4
2	Divide	17	640
3	3	18	30
4	8	19	0
5	3 , 7	20	16
6	2, 8	21	37
7	5, 10	22	39
8	32	23	9
9	9	24	0
10	10	25	28
11	1	26	72
12	6	27	52
13	3	28	120
14	32	29	68
15	1	30	150

Q. No.	Answers	Q. No.	Answers
31	306	46	64 Sheets
32	63	47	140 Barfis
33	18	48	6 Bananas
34	22	49	₹ 600
35	5	50	₹ 1000
36	14	51	31 days
37	81	52	80 km
38	66	53	15
39	102	54	a = 30 b = 600
40	8	55	(i) = 7 (ii) = 16 (iii) = 24
41	11		
42	45 Pens		
43	140 Cakes		
44	900 Fruits		
45	800 Students		

CHAPTER – 4

FRACTIONS

Points to Remember:

- Whole thing or whole region is represented as 1.
- One:  This is a whole. It is written as 1.
- One half:  If we divide whole into two equal parts, then each part is called one half ($\frac{1}{2}$).
- One third:  If we divide whole in three equal parts, then each part is called one third ($\frac{1}{3}$).
- One fourth:  If we divide whole in four equal parts, then each part is called one fourth ($\frac{1}{4}$).
- Two third:  If we divide whole in 3 equal parts and shade the two equal parts, then the shaded portion is called two – third ($\frac{2}{3}$).
- The numbers $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{2}{3}$ etc. are called fractional numbers.
- A fraction has two parts: Numerator and Denominator.

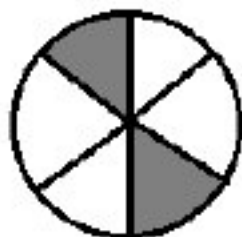
Example: $\frac{2}{3}$, here 2 is numerator and 3 is denominator.

- **Every whole number can be written as a fraction by writing 1 in the denominator.** Example: $3 = \frac{3}{1}$, $5 = \frac{5}{1}$
- **Proper Fraction:** A fraction whose numerator is less than its denominator. For example: $\frac{2}{5}$, $\frac{3}{4}$, $\frac{1}{2}$ etc.
- **Improper Fraction:** A fraction whose numerator is greater than its denominator. For example: $\frac{4}{3}$, $\frac{7}{2}$, $\frac{5}{4}$ etc.
- **Mixed Fraction:** A fraction which is expressed as a combination of a whole number and a proper fraction. For example: $3\frac{1}{2}$, $1\frac{1}{3}$, $1\frac{1}{4}$ etc.

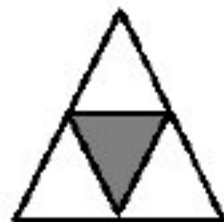
QUESTIONS:

[1-10] In the following figures, find the fraction of shaded region.

1.



2.



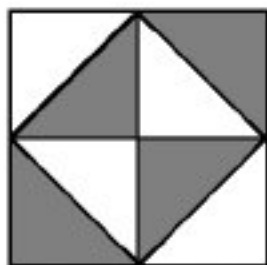
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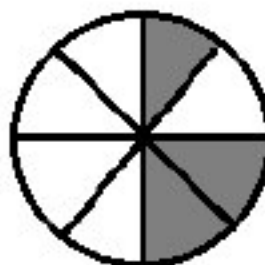
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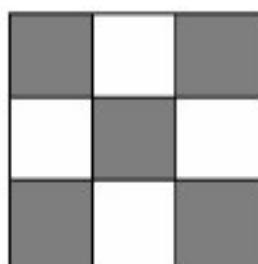
5.



6.



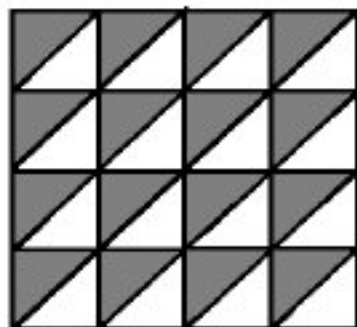
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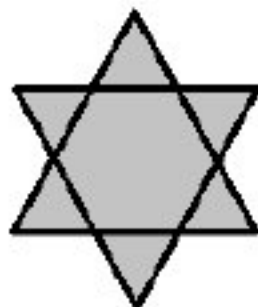
8.



9.



10.



[11-15] Find the fraction for the following numerical value:

11. Two – third

12. One – fifth

13. A quarter
14. Three – fifth
15. One – half

[16-20] Find the fractional form of the following in lowest form:

16. $4 \div 5$
17. $3 \div 7$
18. $9 \div 2$
19. $15 \div 6$
20. $12 \div 18$

[21-25] Identify the Proper and Improper fraction:

21. $\frac{5}{6}, \frac{2}{3}, \frac{3}{5}, \frac{7}{6}$
22. $\frac{1}{2}, \frac{2}{5}, \frac{3}{8}, \frac{4}{6}$
23. $\frac{11}{5}, \frac{6}{5}, \frac{3}{4}, \frac{1}{3}$
24. $\frac{1}{2}, \frac{1}{3}, \frac{3}{2}, \frac{8}{5}$
25. $\frac{11}{5}, \frac{9}{6}, \frac{7}{5}, \frac{1}{5}$

[26-30] Which fraction is odd one out?

26. $\frac{1}{2}, \frac{1}{3}, \frac{2}{5}, \frac{6}{5}$
27. $\frac{3}{6}, \frac{7}{5}, \frac{8}{3}, \frac{6}{4}$

28. $\frac{1}{12}, \frac{3}{7}, \frac{5}{8}, \frac{9}{5}$

29. $\frac{11}{8}, \frac{5}{6}, \frac{4}{5}, \frac{3}{4}$

30. $\frac{1}{3}, \frac{2}{1}, \frac{1}{2}, \frac{1}{4}$

[31-35] Express the following in lowest form:

31. $\frac{6}{9}$

32. $\frac{4}{8}$

33. $\frac{3}{15}$

34. $\frac{20}{15}$

35. $\frac{12}{18}$

36. What fraction of a day is 6 hours?

37. What fraction of an hour is 15 minutes?

38. 7 months are what fraction of an year?

39. How many $\frac{1}{4}$'s are there in 2?

40. How many minutes are there in $\frac{1}{6}$ of an hour?

41. Convert the following in mixed fraction:

(a) $\frac{4}{3}$

(b) $\frac{7}{5}$

(c) $\frac{11}{4}$

(d) $\frac{20}{7}$

42. How many $\frac{1}{3}$ are there in $3\frac{1}{3}$?

43. $1\frac{1}{3}$ of a number is 12. Find the number.

44. Cost of one metre cloth is ₹100. Find the cost of $1\frac{1}{4}$ m cloth.

45. Express the following mixed fractions as improper fraction:

(a) $1\frac{3}{4}$

(b) $2\frac{3}{4}$

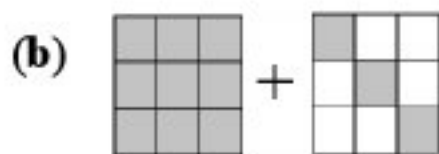
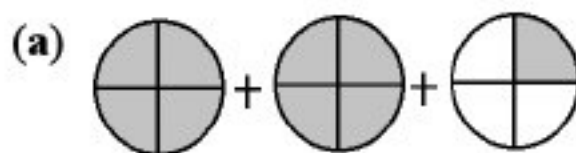
(c) $2\frac{1}{2}$

(d) $1\frac{1}{5}$

46. If the price of 1 litre of milk is ₹ 60, then what is the price of $2\frac{1}{2}$ litres of milk?

47. The length of a pipe is 50 metres. What will be the length of $1\frac{1}{5}$ such pipes?

48. Express the shaded part of the following in mixed fraction:



49. In a class of 40 students, there are 25 boys and 15 girls.

What is the fraction of number of boys in the class?

50. In a box, there are 10 red colour balls, 8 blue colour

balls and 12 green colour balls.

- (a) What is the fraction of red colour balls in the box?**
- (b) What is the fraction of blue and green colour balls together in the box?**

ANSWERS:

Q. No.	Answers	Q. No.	Answers
1.	$\frac{1}{3}$	18.	$4\frac{1}{2}$
2.	$\frac{1}{4}$	19.	$2\frac{1}{2}$
3.	$\frac{3}{4}$	20.	$\frac{2}{3}$
4.	$\frac{1}{2}$	21.	Proper : $\frac{5}{6}, \frac{1}{3}, \frac{3}{5}$ Improper : $\frac{7}{6}$
5.	$\frac{1}{2}$	22.	Proper : $\frac{1}{1}, \frac{1}{5}, \frac{3}{8}, \frac{4}{6}$ Improper : None
6.	$\frac{3}{8}$	23.	Proper : $\frac{3}{4}, \frac{1}{3}$ Improper : $\frac{11}{5}, \frac{6}{5}$
7.	$\frac{5}{9}$	24.	Proper : $\frac{1}{1}, \frac{1}{3}$ Improper : $\frac{3}{1}, \frac{8}{5}$
8.	$\frac{9}{22}$	25.	Proper : $\frac{1}{5}$ Improper : $\frac{11}{5}, \frac{9}{6}, \frac{7}{5}$
9.	$\frac{1}{2}$	26.	$\frac{6}{5}$
10.	1	27.	$\frac{3}{6}$
11.	$\frac{2}{3}$	28.	$\frac{9}{5}$
12.	$\frac{1}{5}$	29.	$\frac{11}{8}$
13.	$\frac{1}{4}$	30.	$\frac{2}{1}$
14.	$\frac{3}{5}$	31.	$\frac{1}{2}$
15.	$\frac{1}{2}$	32.	$\frac{1}{2}$
16.	$\frac{4}{5}$	33.	$\frac{1}{5}$
17.	$\frac{3}{7}$	34.	$1\frac{1}{3}$

Q. No.	Answers	Q. No.	Answers
35.	$\frac{2}{3}$	43.	9
36.	$\frac{1}{4}$	44.	₹125
37.	$\frac{1}{4}$	45.	(a) $\frac{7}{4}$ (b) $\frac{11}{4}$
38.	$\frac{7}{12}$		(c) $\frac{5}{2}$ (d) $\frac{6}{5}$
39.	8		
40.	10 minutes	46.	₹150
41.	(a) $1\frac{1}{3}$	47.	60 metres
	(b) $1\frac{2}{5}$	48.	(a) $2\frac{1}{4}$
	(c) $2\frac{3}{4}$		(b) $1\frac{1}{3}$
	(d) $2\frac{6}{7}$	49.	$\frac{5}{8}$
42.	10	50.	(a) $\frac{1}{3}$ (b) $\frac{2}{3}$

CHAPTER-5

UNIT CONVERSION

Points to Remember:

- The known standard quantity used for measurement is called a unit.

Example: - When we say I bought 2 kg mangoes, the quantity is expressed in number "2" and the unit is kg. (Kilogram).

- There are different units used for measuring different quantities. Distance is measured in kilometre, metre etc.
- Weight is measured in Kilogram, gram etc.
- Time is measured in hours, minutes, seconds, days etc.
- Volume is measured in Litre, millilitre, etc.
- Countable items are measured in dozen, score, etc.
- To carry out required calculations a unit can be converted into its related smaller units and vice-versa.
- Weight related conversions:-
1 kilogram (Kg) = 1000 grams (g)
 $1 \text{ gram (g)} = \frac{1}{1000} \text{ kilogram (kg)}$
- Volume (capacity) related conversions:-

1 Litre (l) = 1000 millilitre (ml)

1 millilitre (ml) = $\frac{1}{1000}$ Litre (l)

➤ **Time related conversions:-**

1 hour = 60 minutes (min)

1 minute = 60 seconds (s)

1 Day = 24 hours (h)

1 Week = 7 days

1 Year = 52 weeks (approx.)

➤ **Other general conversions:-**

1 dozen = 12 objects

1 Score = 20 objects

QUESTIONS:

[1-5] Convert kilogram into gram:

1. $2\frac{1}{2}$ kg = _____ g

2. 5 kg = _____ g

3. 3 kg 500g = _____ g

4. 4 kg 700 g = _____ g

5. 100 kg = _____ g

[6-10] Convert gram into Kilogram:

6. 3000 g = _____ kg

7. 5500 g = _____ kg

8. 500 g = _____ kg

9. 250 g = _____ kg

10. 10000 g = _____ kg

[11-15] Convert the following units of volume:

11. 3 Litres = _____ millilitres.

12. 2 Litre 500 millilitres = _____ millilitres.

13. $8\frac{1}{2}$ Litres = _____ millilitres.

14. 6500 Millilitres = _____ Litres.

15. 1250 millilitres = _____ Litres.

[16-20] Convert the following units of time:

16. 5 hours = _____ minutes

17. $1\frac{1}{2}$ hours = _____ minutes

18. 180 minutes = _____ hours

19. 15 minutes = _____ seconds

20. 35 days = _____ weeks

[21-25] Convert the following units:

21. 2 dozen = _____ Items.

22. 36 Items = _____ dozens

23. 50 Items = _____ Scores

24. $3\frac{1}{2}$ Scores = _____ Items

25. 30 Items = _____ dozens

[26-30] Fill the following blanks:

26. $1\frac{1}{2}$ kilograms + $3\frac{1}{2}$ kilograms = kilograms

27. $2\frac{1}{2}$ kilograms + $\frac{1}{2}$ kilograms = kilograms

28. 2 Litres + $3\frac{1}{2}$ litres + 500 millilitres =litres

29. $5\frac{1}{2}$ hours + $2\frac{1}{2}$ hours + 60 minutes =hours

30. 1 day + 16 hours + 300 minutes =hours.

31. How many years are there in 730 days?

32. What should be added to 550 g to make it 1 kg?

33. What should be subtracted from 1045 g to get 1 kg?

34. How many pencils are there in $2\frac{1}{4}$ scores of pencils?

35. How many total days are there in the months of July, August and September of one year?

36. Radhika bought $2\frac{1}{2}$ kg rice, 3 kg dal and $1\frac{1}{2}$ kg sugar from a shop. What is the total weight of all the items?

37. The weight of a person is 84 kg 782g. How much he should reduce to weigh 75 kg?

38. 600 g is how much less than $1\frac{1}{2}$ kg?

39. How many maximum weeks are there in a year of 365 days?
40. Annu drinks $3\frac{1}{2}$ litres of water daily. How many litres of water will she drink in one week?
41. Preeti has $2\frac{1}{2}$ kg peanuts. She gave 250 g to Himani, 300 g to Anjali, 450g to Annu and 500 g to Deepika. How much peanuts are left with Preeti?
42. Doremon has 6 dozen bananas. He gave 6 bananas to Nobita, 8 bananas to Shizuka, 10 bananas to Suneo, 12 bananas to Dorami and 18 bananas to Gian. How many dozens of bananas are left with Doremon?
43. Huney has a pack of 3 litres of frooti for the party with his friends. He gave 250 ml to each of his friends Bunny, Zordar, Popat, Khanna, Toni and Babbar and take 500 ml frooti himself. How much frooti is left in the pack?
44. If Bheem weighs 50 kg, Jack weighs 80 kg and Dora weighs 35 kg, then what is the total weight of all the children in grams?
45. A tank has a capacity of 1000 Litres. If there are 845 litres of water in the tank. How much more water in millilitres is needed to fill the tank?

- 46. Chawla Bakery sells 4 dozen pastries every day. How many pastries does the bakery sell in 7 days?**
- 47. In a library, there are 10 dozen books of English, 15 scores books of Hindi, 6 dozen books of Punjabi and 10 scores books of Urdu. Find the total number of books in the library.**
- 48. Varun completes his homework in 2 hours and 45 min, Tiger completes it in 2 hours 15 min and Alia takes $3\frac{1}{2}$ hours to complete the home work. Find the total time spent in completing homework by the three children.**
- 49. How many seconds are there in one hour?**
- 50. The weight of Singham is 65 kg 750g and the weight of Mr. Bean is 45 kg 800g. What is the difference between their weights?**

ANSWERS:

Q. No.	Answers	Q. No.	Answers
1.	2500	26.	5
2.	5000	27.	3
3.	3500	28.	6
4.	4700	29.	9
5.	100000	30.	45
6.	3	31.	2 years
7.	$5\frac{1}{1}$	32.	450 g
8.	$\frac{1}{2}$	33.	45 g
9.	$\frac{1}{4}$	34.	45
10.	10	35.	92 days
11.	3000	36.	7 Kg
12.	2500	37.	9 Kg 782 g
13.	8500	38.	900 g
14.	$6\frac{1}{1}$	39.	52 weeks
15.	$1\frac{1}{4}$	40.	$24\frac{1}{1}$ L
16.	300	41.	1 Kg
17.	90	42.	$1\frac{1}{1}$ dozen
18.	3	43.	1 L
19.	900	44.	165000 g
20.	5	45.	155000 ml
21.	24	46.	336
22.	3	47.	692
23.	$2\frac{1}{1}$	48.	$8\frac{1}{1}$ hours or 8 hours 30 minutes
24.	70	49.	3600 seconds
25.	$2\frac{1}{1}$	50.	19 Kg 950g

CHAPTER – 6

MEASUREMENT

Points to Remember:

- **Measurement of Length:** It helps us to know how long, short, tall or far objects are. It is measured in centimetres, metres, kilometres etc.
- The basic unit to measure length is METRE, denoted by m.
- We use centimetre to measure objects of smaller and shorter lengths. It is denoted by cm. For example: length of a book, pencil etc. are measured in cm.
- We use Metre to measure length of a table, length or height of a room.
- We use kilometre to measure longer lengths like distance between two places. It is denoted by km. For example: distance between Delhi and Agra is measured in kilometres.
- **Conversion of Units of Lengths:** Unit of length i.e. centimetre, metre, kilometre etc. can be converted from one form to other.

- **Metres to Centimetres:** $1 \text{ m} = 100 \text{ cm}$

For example: $5 \text{ m} = 5 \times 100 = 500 \text{ cm}$

To convert metres and centimetres to centimetres, we multiply the metres by 100 and then add the centimetres to it.

For example: $6 \text{ m } 98 \text{ cm} = (6 \times 100) \text{ cm} + 98 \text{ cm}$
 $= (600 + 98) \text{ cm} = 698 \text{ cm}$

- **Centimetres to Metres:** When we convert centimetres to metres or centimetres to metres and centimetres, the last two digits always stand for centimetres and the rest of the digits stands for metres.

For example: (i) $432 \text{ cm} = 4 \text{ m } 32 \text{ cm}$

(ii) $2465 \text{ cm} = 24 \text{ m } 65 \text{ cm}$

- **Kilometres to Metres:** $1 \text{ km} = 1000 \text{ m}$

For example: $10 \text{ km} = 10 \times 1000 = 10000 \text{ m}$

To convert Kilometres and Metres to Metres, we multiply the number of kilometres by 1000 and then add the numbers of metres to it.

For example: $5 \text{ km } 308 \text{ m} = (5 \times 1000) \text{ m} + 308 \text{ m}$
 $= (5000 + 308) \text{ m} = 5308 \text{ m}$

- **Metres to Kilometres:** When we convert Metres to Kilometres, the last three digits stand for metres and the rest of the digits stand for kilometres.

For example: $9734 \text{ m} = 9 \text{ km } 734 \text{ m}$

- **Addition and Subtraction of Lengths:** To add or subtract lengths, we write the given units in different columns separately. Arrange the given values under these units and then add or subtract.

For example:

(i) Add 9 m 56 cm and 13 m 78 cm

$$= (9 + 13) \text{ m } (56 \text{ cm} + 78 \text{ cm}) = 23 \text{ m } 34 \text{ cm}$$

(ii) Subtract 45 m and 62 cm from 73 m 98 cm.

$$= (73 \text{ m } 98 \text{ cm}) - (45 \text{ m } 62 \text{ cm})$$

$$= (73 - 45) \text{ m } (98 - 62) \text{ cm}$$

$$= 28 \text{ m } 36 \text{ cm}$$

- **Multiplication and Division of Lengths:** To multiply or divide the lengths, we convert the bigger units to smaller units and then multiply or divide by the given number.

For example: Multiply 4m 33cm by 5

$$4 \text{ m } 33 \text{ cm} \times 5 = 433 \text{ cm} \times 5 = 2165 \text{ cm}$$

For example: Divide 8 km 800 m by 5

$$8 \text{ km } 800 \text{ m} \div 5 = 8800 \text{ m} \div 5 = 1760 \text{ m}$$

Questions:

[1-4] Convert the following into centimetres:

- 1. 17m**
- 2. 27m**
- 3. 18m 26 cm**
- 4. 24m 98cm**

[5-8] Convert the following into metres and centimetres:

- 5. 292 cm**
- 6. 614 cm**
- 7. 3962 cm**
- 8. 2318 cm**

[9-12] Convert the following into metres:

- 9. 65km 204 m**
- 10. 23km 987 m**
- 11. 760km 194 m**
- 12. 164km 287 m**

[13-16] Convert the following to kilometres or kilometres and metres:

- 13. 87,230 m**
- 14. 54,159 m**
- 15. 85,721 m**
- 16. 38,655 m**

17. Two ropes of length 83 m 25 cm and 60 m 70 cm are joined together. Find the total length of the joined rope.
18. Ayesha bought a ribbon that measures 112 cm. She cut a piece measuring 91 cm from it. Find the length of the remaining ribbon?

[19-22] Multiply:

19. 6m 20 cm by 23
20. 1 km 123 m by 18
21. 10 m 34 cm by 5
22. 50 km 320 m by 2

[23-26] Divide:

23. 4 km 775 m by 5
24. 7 m 92 cm by 6
25. 8 m 82 cm by 7
26. 7 m 32 cm by 4
27. If 2 m 50 cm of cloth is used for making a frock, then how much cloth is required for making 5 such frocks?
28. If 10 m cloth is required to stitch 5 pants. How much cloth is required to stitch one such pant?

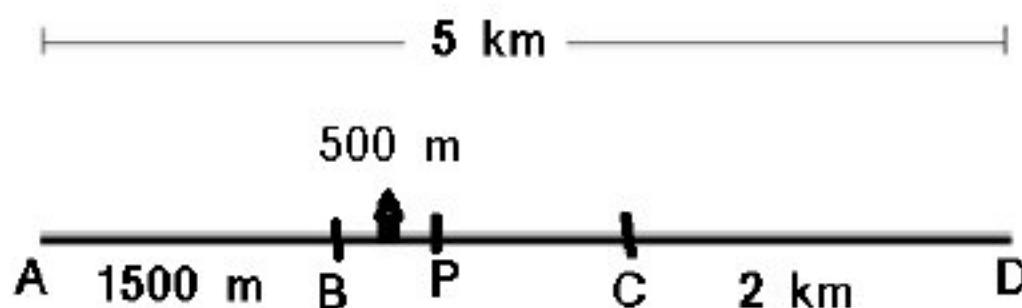
[29-33] Fill >, < or = in the blank boxes :

29. 24 km 200 m 2420 m
30. 2 m 30 cm 2300 cm

31. 5000 cm 5 m
32. 7 km 7000 m
33. 9320 m 9 km 32 m
34. Ananya has two bags of wheat weighing 2 kg 230 g and 4 kg 720 g respectively. Find the total weight of the two bags?
35. Neha keeps 2 kg apples, 1 kg 500 g oranges and 725 g grapes in the refrigerator. What is the total weight of fruits in the refrigerator?
36. Navya has a packet of chocolates weighing 1 kg 752 g. What will be the weight of 8 such packets?
37. The weight of 4 boxes is 32 kg. Find the weight of each box.
38. Avantika buys 3 litre 245 ml of orange juice and 4 litre 320 ml of apple juice and prepares fruit punch by mixing these juices. She pours 1 litre 450 ml of fruit punch into the glasses. How much fruit punch is still left?
39. A bottle contains 2 litre 200 ml of cooking oil. How much quantity of cooking oil will 6 bottles contain?
40. A box contains 4 bags of sugar. The total weight of all the 4 bags of sugar is 12 kg. What is the weight of each bag of sugar?

41. The capacity of a jar is 1 litre 875 ml. Anuja fills the empty jar completely by pouring 3 glasses of water in it. Find the capacity of the glass that she used to fill the jar.

[42–45] Observe the following figure and answer :



42. Find the distance between points B and C.
43. Find the distance between points P and C.
44. Find the distance between points P and D.
45. Find the difference between the distances of AC and AB.

ANSWERS:

Q. No.	Answers	Q. No.	Answers
1.	1700 cm	24.	132 cm
2.	2700 cm	25.	126 cm
3.	1826 cm	26.	183 cm
4.	2498 cm	27.	12 m 50 cm
5.	2 m 92 cm	28.	2 m
6.	6 m 14 cm	29.	>
7.	39 m 62 cm	30.	<
8.	23 m 18 cm	31.	>
9.	65204 m	32.	=
10.	23987 m	33.	>
11.	760194 m	34.	6 kg 950 g
12.	164287 m	35.	4 kg 225 g
13.	87 km 230 m	36.	14 kg 16 g
14.	54 km 159 m	37.	8 kg
15.	85 km 721 m	38.	6 l 115 ml
16.	38 km 655 m	39.	13 l 200 ml
17.	143 m 95 cm	40.	3 kg
18.	21 cm	41.	625 ml
19.	142 m 60 cm	42.	1500 m
20.	20 km 214 m	43.	1 km
21.	51 m 70 cm	44.	3 km
22.	100 km 640 m	45.	1500 m
23.	955 m		

CHAPTER – 7

TIME

Points to Remember:

- A clock face has markings with numbers from 1 to 12 which denote the hours.
- The smaller markings between any two hour markings denote minutes.
- An hour hand takes 12 hours to complete one round.
- A minute hand takes 1 hour, i.e. 60 minutes to complete one round.
- A second hand takes 1 minute, i.e. 60 seconds to complete one round. Time in hours, minutes and seconds:

1 DAY = 24 HOURS, 1 HOUR = 60 MINUTES,

1 MINUTE = 60 SECONDS



5:05



7:50

- **Time in am and pm:**

The time between 12 Midnight to 12 Noon is termed as antemeridian (am). The time between 12 Noon to 12 Midnight is termed as post meridian (pm).

- **24 hour Clock:**

The format of time in a 24- hour clock is

HOURS: MINUTES or HOURS: MINUTES: SECONDS.

12 hour Clock	24 hour Clock
12 Midnight	00:00
3:10 a.m.	3:10
11:35 a.m.	11:35
12 Noon	12:00
3:10 p.m.	15:10
11:35 p.m.	23:35

- **If the given time is between 1:00 p.m. and 11:59 p.m., add 12 hours (12:00) to it.**

For example:

$$6:20 \text{ p.m.} = 06:20 \text{ hours} + 12:00 \text{ hours} = 18:20 \text{ hours}$$

- **Convert days to hours and Vice Versa:**

$$1 \text{ Day} = 24 \text{ hours}$$

$$1 \text{ hour} = \frac{1}{24} \text{ Day}$$

For example:

$$9 \text{ days} = 9 \times 24 \text{ hours} = 216 \text{ hours}$$

$$428 \text{ hours} = \frac{428}{24} \text{ days} = 17 \text{ days } 20 \text{ hours}$$

- **Convert hours to minutes and Vice Versa:**

$$1 \text{ hour} = 60 \text{ minutes}$$

$$1 \text{ minute} = \frac{1}{60} \text{ hour}$$

For example:

$$9 \text{ hours} = 9 \times 60 \text{ minutes}$$

$$= 540 \text{ minutes}$$

$$932 \text{ minutes} = \frac{932}{60}$$

$$= 15 \text{ hour } 32 \text{ minutes}$$

- **Convert minutes to seconds and Vice Versa:**

$$1 \text{ minute} = 60 \text{ seconds}$$

$$1 \text{ second} = \frac{1}{60} \text{ minute}$$

For example:

$$\begin{aligned} 15 \text{ minutes} &= 15 \times 60 \\ &= 900 \text{ seconds} \end{aligned}$$

$$\begin{aligned} 156 \text{ seconds} &= \frac{156}{60} \\ &= 2 \text{ minutes } 36 \text{ seconds} \end{aligned}$$

- **Addition and Subtraction of Time:**

To add time, we follow the given steps:

- **Add the seconds together,**
- **If the number of seconds is 60 or more, then**
 - a) **Subtract 60 from seconds and increase the number of minutes by 1.**
 - b) **Write the seconds left in the seconds column.**
- **Add the minutes together.**
- **If the number of minutes is 60 or more, then follow the process of seconds likewise.**
- **Add the hours together.**

For example:

Add 3 hours 15 minutes 30 seconds to 2 hours 35 minutes 35 seconds

3 hours 15 minutes 30 seconds + 2 hours 35 minutes 35 seconds

= (3 + 2) hours (15 + 35) minutes (30 + 35) seconds

= 5 hours 51 minutes 5 seconds

To Subtract time, we follow the same process just like addition, but this time we have to borrow from the bigger quantity to smaller.

For example: Subtract 3 hours 15 min 50 sec from 8 hours 50 min 55 sec

[8 hours 50 min 55 sec] – [3 hours 15 min 50 sec]

= [8 – 3] hours [50 – 15] min [55 – 50] sec

= 5 hours 35 min 5 sec

- **Elapse Time: Elapse time or duration is the time passed between the start and end of an event. We can calculate the elapse time or duration when we know the starting and finishing time by:**

(i) Forward or Backward counting

(ii) By Addition or Subtraction

- **CALENDAR: A Calendar is a record of Months, Weeks, and days in a year.**
 - **Total days in a Non – Leap Year = 365 days**
 - **Total days in a Leap Year = 366 days**
 - **1 Year = 12 Months / 52 weeks (approx.)**
 - **1 Week = 7 days**
 - **Months having 31 days: January, March, May, July, August, October, December.**
 - **Months having 30 days: April, June, September, November**
 - **Month having 28 or 29 days: February (28 days in a non-leap year and 29 days in a leap year).**

QUESTIONS

[1-4] Find the time for the following:

- 1. 4 hours before 10:20 am**
- 2. 3 hours after 9:45 am**
- 3. 15 minutes after 12 midnight.**
- 4. 8 hours 20 minutes after 4:10 am**

[5-8] Express the following as am or pm:

- 5. Breakfast time.**
- 6. Playtime after breakfast.**
- 7. Wake up time in the morning.**
- 8. Dinner time.**

[9-10] Convert the given 24 hour time to 12 hour time:

- 9. 17:20 hours**
- 10. 19:05 hours**

[11-12] Convert the given 12 hour time to 24 hour time:

- 11. 6:20 am**
- 12. 3:25 pm**

[13-14] Convert the following into hours:

- 13. 9 days**
- 14. 1 Week 2 hours**

[15-16] Convert the following into days and hours:

- 15. 169 hours**
- 16. 248 hours**

[17-18] Convert the following into minutes:

- 17. 5 hours**

18. 8 hours 10 minutes

[19-20] Convert the following into hours and minutes:

19. 245 minutes

20. 528 minutes

[21-22] Convert the following into seconds:

21. 5 minutes

22. 10 minutes 12 seconds

[23-24] Convert the following into minutes and seconds:

23. 1009 seconds

24. 560 seconds

[25-26] Convert the following into hours, minutes and seconds:

25. 3254 seconds

26. 4800 seconds

[27-30] Add the following:

27. 3 hours 20 min 30 sec, 2 hours 15 min 5 sec, and 3 hours 45 min 50 sec.

28. 8 hours 20 min 5 sec, 7 hours 35 min 40 sec, and 6 hours 50 min 16 sec.

29. 16 hours 30 min 40 sec, 1 hour 20 min 10 sec, and 3 hours 45 min 15 sec.

30. 6 hours 45 min 25 sec, 3 hours 20 min 30 sec, and 2 hours 15 min 45 sec.

[31-34] Subtract:

31. 6 hours 24 min 30 sec from 8 hours 16 min 15 sec.

32. 3 hours 15 min 5 sec from 5 hours 28 min 45 sec.

33. 4 hours 45 min 35 sec from 5 hours 19 min 15 sec.

34. 12 hours 35 min 52 sec from 14 hours 21 min 37 sec.

35. Manan started his homework at 6:45 p.m. and finished it at 8:45 p.m. How much time did he take to finish his homework?

36. Look at the given clocks and find the duration between the time shown in the first clock and the second clock.



37. A class test starts at 9:15 am and it is of 45 minutes duration. When will it finish?

38. Ananya's Music class starts at 5:45 pm and gets over at 7:15 pm. Find the duration of Ananya's class.

[39-42] Calculate the duration between the following:

39. 3:45 am and 5:30 am

40. 12 Noon and 12:05 pm

41. 3:20 pm and 6:45 pm

42. 9:45 am and 9:45 pm

[43-45] If today is Friday, then answer the following questions:

43. What day will be after 2 days (i.e. 48 hours)?

44. What day was 4 days before?

45. What day will it be after 10 days from today?

ANSWERS:

Q. No.	Answers	Q. No.	Answers
1.	6:20 am	24.	9 minutes 20 seconds
2.	12:45 p m	25.	54 minutes 14 seconds
3.	12:15 am	26.	1 hour 20 minutes
4.	12:30 p m	27.	9hrs 21min 25 sec
5.	am	28.	22 hrs 46 min 01 sec
6.	am	29.	21 hrs 36 min 5 sec
7.	am	30.	12 hrs 21 min 40 sec
8.	p m	31.	1 hr 51 min 45 sec
9.	5:20 p m	32.	2 hrs 13 min 40 sec
10.	7:05 p m	33.	33 min 40 sec
11.	0620 hours	34.	1 hr 45 min 45 sec
12.	1525 hours	35.	2 hours
13.	216 hours	36.	50 minutes
14.	170 hours	37.	10:00 am
15.	7 days 1 hour	38.	1 hour 30 minutes
16.	10 days 8 hours	39.	1 hour 45 minutes
17.	300 minutes	40.	5 minutes
18.	490 minutes	41.	3 hours 25 minutes
19.	4 hours 5 minutes	42.	12 hours
20.	8 hours 48 minutes	43.	Sunday
21.	300 seconds	44.	Monday
22.	612 seconds	45.	Monday
23.	16 minutes 49 seconds		

CHAPTER-8

MONEY

Points to Remember:

- Money is a medium of exchange that is accepted by people for the payment of goods and services.
- In our daily life, we buy things from the market and in return, we pay money as per the rate of article, so money has great importance to us.
- Different countries use different currencies. Indian currency is known as “Rupees”.
- The symbol used for Rupees in short form is ₹.
For example: We write rupees 20 as ₹ 20.
- ₹ 1 = 100 paise
- To convert rupees into paise, we multiply the rupees by 100. To convert paise into rupees, we divide the paise by 100.
For Example: ₹ 12 = $12 \times 100 = 1200$ paise
 $7500 \text{ paise} = 7500 \div 100 = ₹ 75$
- For the addition of rupees and paise, it is convenient to convert either paise into rupees or rupees into paise.
For Example: Add ₹ 17 and 500 paise,

$$\text{₹ } 17 = 17 \times 100 \text{ paise} = 1700 \text{ paise}$$

$$1700 + 500 = 2200 \text{ paise} = \text{₹ } 22$$

Or

$$500 \text{ paise} = \text{₹ } 5$$

$$\text{₹ } 17 + \text{₹ } 5 = \text{₹ } 22$$

- For the subtraction also, either rupees (₹) is converted into paise or paise is converted into rupees.

For Example : To subtract 675 paise from 18,

$$\text{₹ } 18 = 18 \times 100 \text{ paise} = 1800 \text{ paise}$$

$$\begin{aligned} 1800 \text{ paise} - 675 \text{ paise} &= 1125 \text{ paise} \\ &= \text{₹ } 11 \text{ and } 25 \text{ paise} \end{aligned}$$

QUESTIONS:

[1-5] Convert the following amounts into paise:

1. ₹ 9
2. ₹ 50
3. ₹ 20 and 50 paise
4. ₹ 130
5. ₹ 150 and 90 paise

[6-10] Convert paise into rupees:

6. 200 paise

7. 500 paise
8. 1000 paise
9. 2300 paise
10. 10000 paise
11. How many ₹ 20 coins are there in ₹ 100?
12. How many ₹ 10 coins make ₹ 150?
13. How many 50 paise coins make ₹ 50?
14. How many coins of ₹ 5 and ₹ 2 will make ₹ 21 if there are total 6 coins?
15. How many maximum coins of ₹ 10 can be there in ₹ 1990?

[16-20] Find the total amount:

16. $20 \times ₹ 1 + 15 \times ₹ 2 + 10 \times ₹ 5$
17. $12 \times ₹ 2 + 20 \times ₹ 5 + 7 \times ₹ 20$
18. $16 \times ₹ 5 + 25 \times ₹ 2 + 20 \times ₹ 10$
19. $8 \times ₹ 2 + 10 \times ₹ 5 + 15 \times ₹ 20$
20. $15 \times ₹ 10 + 20 \times ₹ 5 + 18 \times ₹ 20$
21. How many maximum ₹ 100 notes can be there in ₹ 650?
22. How many maximum ₹ 200 notes can be there in ₹ 1225?
23. How many maximum ₹ 500 notes can be there in

₹ 2835?

24. How many maximum ₹ 20 notes can be there in

₹ 777?

25. How many maximum ₹ 50 notes can be there in ₹ 1550?

26. If the cost of 1 book is ₹150, then what is the cost of 20 books?

27. If the cost of 20 pencils is ₹ 100, then what is the cost of 1 pencil?

**28. Shivam bought a bag for ₹ 700 and spent ₹ 125 as fare.
How much the bag cost to him?**

29. A Shopkeeper purchased a T-shirt for ₹ 400 and he sold it for ₹ 750. How much money did he earn?

30. The cost of 15 metre cloth is ₹ 240. What is the cost of 1 metre cloth?

31. If the cost of 5 kg potatoes is ₹ 100, then what is the cost of 3kg potatoes?

32. If the cost of 1 dozen bananas is ₹ 80, then what is the cost of 3 bananas?

33. Sonia bought 2 kg rice for ₹ 150, 1 kg dal for ₹ 80 and 1 packet of salt for ₹ 40. How much money did she pay?

34. Mayank earned ₹ 10000 in a month and he spends ₹ 8360 . How much money did he save in the month?

- 35. Ragini saves ₹ 23 daily from her pocket money. How much money will she save in the month of March?**
- 36. Priya had ₹ 500. She bought a toy for ₹ 125, a pen for ₹ 20, a notebook for ₹ 70, a sketch pen set for ₹ 120 from it. How much money is now left with her?**
- 37. Rishabh spends ₹ 387 in market and now he is left with ₹ 113. How much money does he had in the beginning?**
- 38. The cost of 5 kg mangoes is ₹ 400. What is the cost of 7 kg mangoes?**
- 39. If the price of one lunch box is ₹ 185, then what is the worth of 7 lunch boxes?**
- 40. Ayush wants to purchase a gift worth ₹500 but he has ₹ 120 only. His friend Dev gives him ₹ 150. How much more money does Ayush need?**

ANSWERS:

Q. No.	Answers	Q. No.	Answers
1.	900 paise	21.	6
2.	5000 paise	22.	6
3.	2050 paise	23.	5
4.	13000 paise	24.	38
5.	15090 paise	25.	31
6.	₹ 2	26.	₹ 3000
7.	₹ 5	27.	₹ 5
8.	₹ 10	28.	₹ 825
9.	₹ 23	29.	₹ 350
10.	₹ 100	30.	₹ 16
11.	5	31.	₹ 60
12.	15	32.	₹ 20
13.	100	33.	₹ 270
14.	3 , 3	34.	₹ 1640
15.	199	35.	₹ 713
16.	₹ 100	36.	₹ 165
17.	₹ 264	37.	₹ 500
18.	₹ 330	38.	₹ 560
19.	₹ 366	39.	₹ 1295
20.	₹ 610	40.	₹ 230

CHAPTER-9

BASIC GEOMETRIC IDEAS

Points to Remember:

- **Geometry**: It is a branch of Mathematics that deals with points, lines, shapes and solids.
- **Basics of Geometry**:
 - **Plane** : A plane is a flat smooth surface which extends indefinitely in all directions. It has only two dimensions i.e. Length & Breadth.
For Example: Wall , Floor , Table -Top etc.
 - **Point**: A point is a mark of position. It has no length, breadth and thickness.
 - **Line**: A Line has no starting or ending point. It can be extended indefinitely in both the directions.



- A Line can be horizontal, vertical, slanting or curved.
- **Line Segment**: When two points are joined or connected with a straight line, it is called Line Segment.



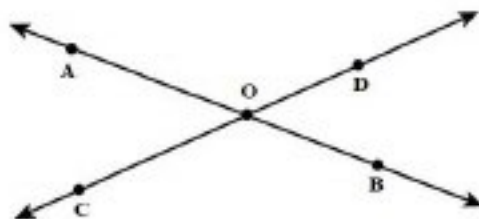
- **Ray:** A Ray is a straight line which has a fixed starting point but no end point.



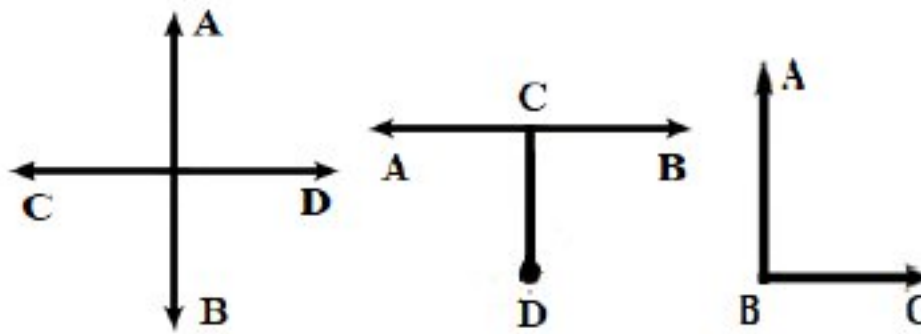
➤ **TYPES OF LINES:-**

1. **Intersecting Lines:** When two or more lines meet each other at a common point, they are called Intersecting lines.

The common point where they meet is called Point of Intersection. AB and CD are intersecting lines. O is the point of intersection.

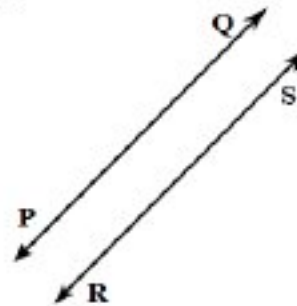
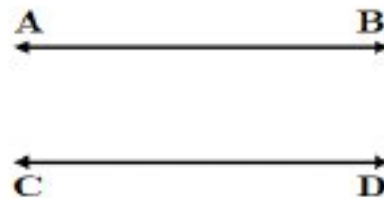


2. **Perpendicular Lines:** - Two lines are said to be perpendicular if they meet or intersect each other at a point where one line is drawn completely vertical on horizontal drawn line.



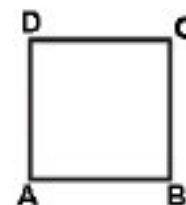
3. **Parallel Lines**: - Parallel lines are those lines which never meet each other at a point. They are at an equal distance from each other.

The Symbol for parallel lines is $\parallel$.



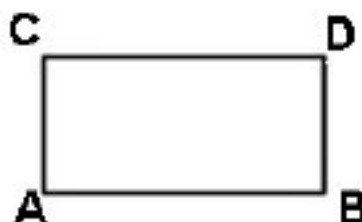
- **Plane Figures**: - Shape is made up of either straight lines or curved lines. Based on that there are five basic shapes. They are Circle, Triangle, Square, Rectangle and Oval. These are flat and closed Two-dimensional (2D) Shapes. These are called plane figures.
- **Square**: - A square is a plane figure that has 4 equal sides or edges and 4 corners or vertices.

$$AB = BC = CD = DA$$



- **Rectangle**: - A Rectangle is a plane figure that has 4 sides in which the opposite sides or edges are equal. It has 4 corners or vertices.

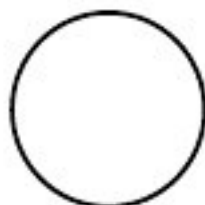
$$AB = DC \text{ and } AC = BD$$



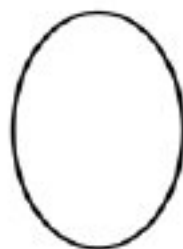
- **Triangle**: - A Triangle is a plane closed figure that has 3 sides or edges and 3 corners or vertices.



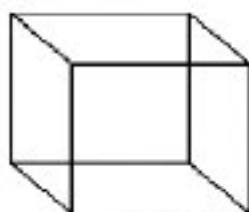
- **Circle**: - A circle is a plane closed figure that has no sides or edges and no corners or vertices.



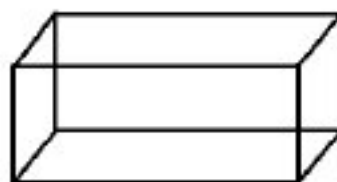
- **Oval**: - An Oval is a plane closed figure that has no sides or edges and no corners or vertices. It is like a flattened circle which resembles the shape of an egg or an ellipse.



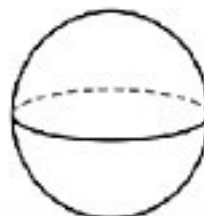
- **Solid Shapes:** - Solids are the objects that have a definite shape and occupy Space. They are also known as Three-dimensional (3D) figures.
 - The Face of a solid is its surface.
 - The edge of a solid is the side where two faces meet.
 - The Vertex of a solid is the point where three edges meet.
- **Cube:** - Cube is a solid made up of 6-flat Square-shaped faces or 6 equal square faces. It consists of 12 straight edges and 8 vertices.



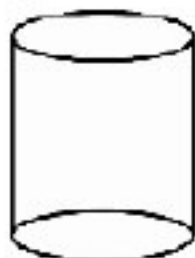
- **Cuboid** :- Cuboid is also a solid made up of 6 flat rectangular-shaped faces . It consists of 12 straight edges and 8 vertices.



- **Sphere:** - Sphere is a solid with only 1 curved surface. It has no edge or vertex.



- **Cylinder**: - Cylinder is a solid with 2 flat and 1 curved surface. It has two curved edges and no vertex.

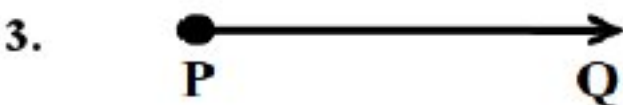
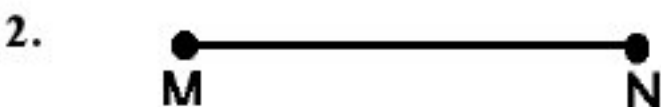
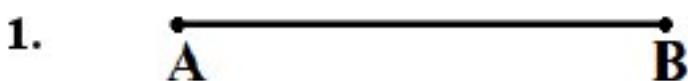


- **Cone**: - Cone is a solid made of 1 flat and 1 curved surface. It has 1 curved edge and 1 vertex.

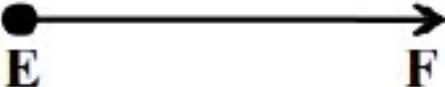


QUESTIONS:

[1-6] Identify and name the following as line, line segment or ray:

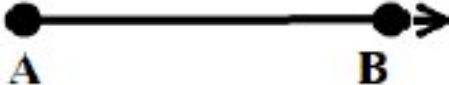


4. 

5. 

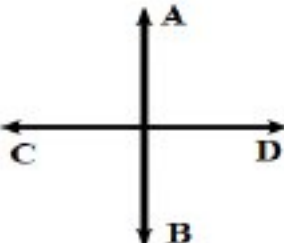
6. 

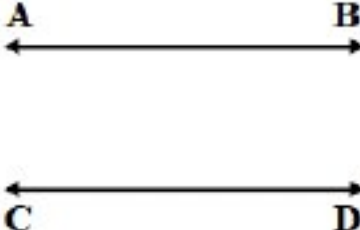
[7-8] Name the following figures:

7. 

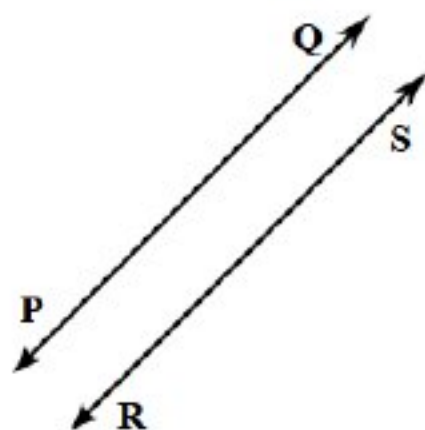
8. 

[9-11] Identify the following lines as perpendicular or parallel lines.

9. 

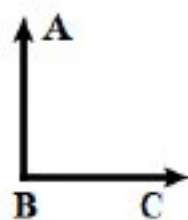
10. 

11.



[12-15] Find the point of intersection for each of the following figure:

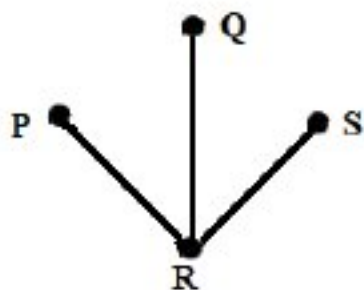
12.



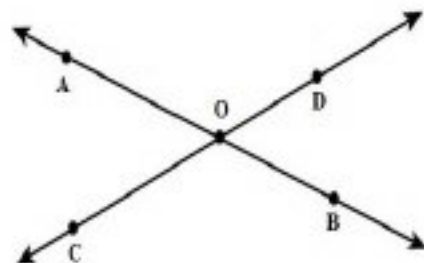
13.



14.



15.



[16-23] Fill in the blanks:

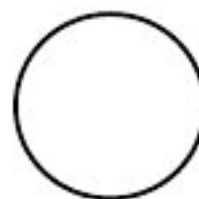
16. Number of corners = _____

17. Number of sides = _____



18. Number of corners = _____

19. Number of sides = _____



20. Number of corners = _____

21. Number of sides = _____



22. Number of corners = _____

23. Number of sides = _____

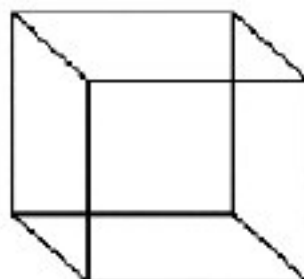


[24-38] Fill in the blanks for the following 3D figures:

24. Number of Faces = _____

25. Number of Edges = _____

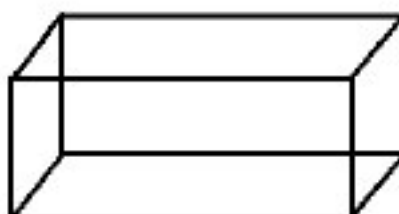
26. Number of Vertices = _____



27. Number of Faces = _____

28. Number of Edges = _____

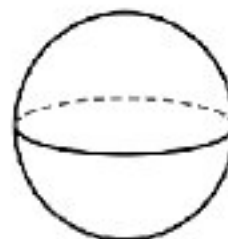
29. Number of Vertices = _____



30. Number of Faces = _____

31. Number of Edges = _____

32. Number of Vertices = _____



33. Number of Faces = _____

34. Number of Edges = _____

35. Number of Vertices = _____



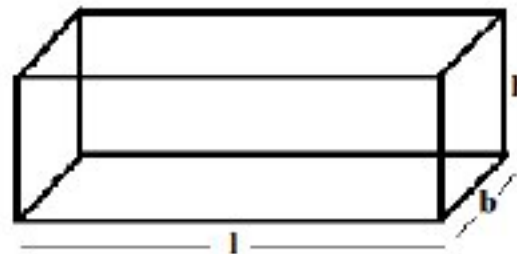
36. Number of Faces = _____

37. Number of Edges = _____

38. Number of Vertices = _____



[39-40] Fill in the blanks, if $b = h$:

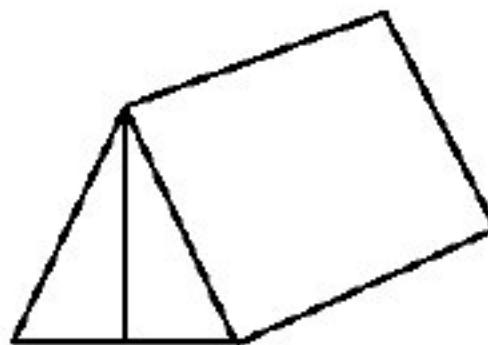


39. Number of rectangular faces = _____

40. Number of square faces = _____

[41-49] Identify Top, Front and Side views for the following solids and fill in the blanks :

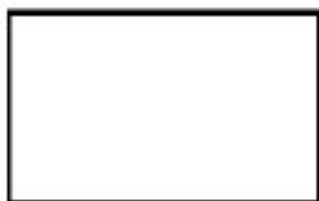
(A)



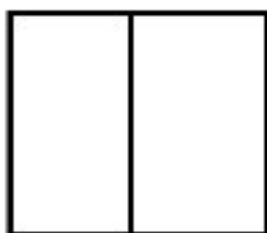
41.



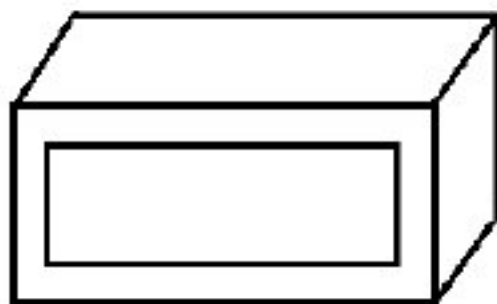
42.



43.



(B)



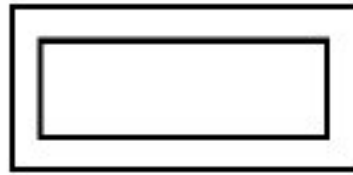
44.



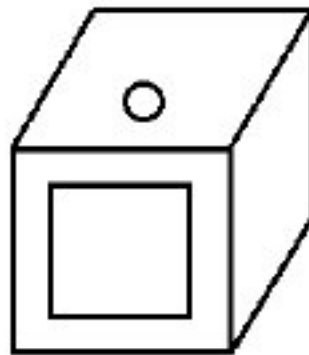
45.



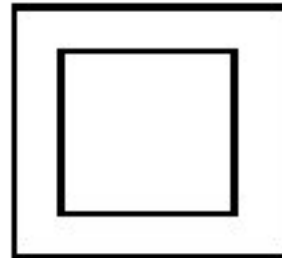
46.



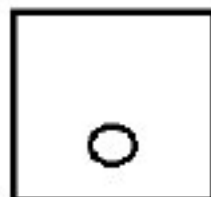
(C)



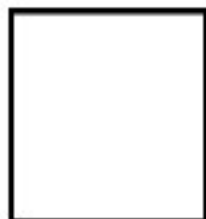
47.



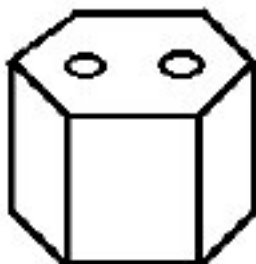
48.



49.



50. Identify the given view as Top, Front or Side view for the following solid and fill in the blank:



ANSWERS

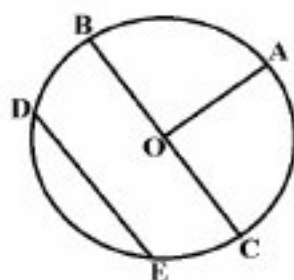
Q. No.	Answers	Q. No.	Answers
1.	Line segment	26.	8
2.	Line segment	27.	6
3.	Ray	28.	12
4.	Line	29.	8
5.	Ray	30.	1
6.	Line Segment	31.	0
7.	Ray	32.	0
8.	Line Segment	33.	2
9.	Perpendicular	34.	1
10.	Parallel	35.	1
11.	Parallel	36.	3
12.	B	37.	2
13.	Q	38.	0
14.	R	39.	4
15.	O	40.	2
16.	4	41.	Front
17.	4	42.	Side
18.	0	43.	Top
19.	0	44.	Side
20.	3	45.	Top
21.	3	46.	Front
22.	4	47.	Front
23.	4	48.	Top
24.	6	49.	Side
25.	12	50.	Top

CHAPTER-10

CIRCLE

Points to Remember:

- A circle is a simple closed curve, whose all points are at the same distance from the fixed point 'Centre'.



- Centre of a Circle: - Centre of a circle is the point which is always at equal distance from all the points on the circle.

In the given figure 'O' is Centre of the Circle

- Radius of a Circle: - The distance between Centre 'O' of a circle and any point on the circle is called its Radius.

In the above figure, OA, OB, OC are radii of circle.

- Diameter of a circle: - The line segment passing through the Centre of circle and having its end points on Circle is called diameter of the Circle.

In the above figure, 'BC' is diameter of the Circle.

- **Diameter of Circle is double of its radius or radius is half of its diameter i.e.**

$$\text{Diameter} = 2 \times \text{Radius}$$

$$\text{Radius} = \frac{1}{2} \times \text{Diameter}$$

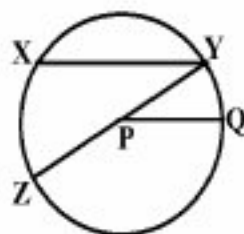
- **Chord of a Circle: - Chord is a straight line segment whose both the end points lie on the circle. In the above figure, 'DE' is the chord of circle.**
- **Diameter of the circle is the longest chord of the circle.**

QUESTIONS:

[1-5] Fill in the blanks:-

- 1. A Circle is a simple _____ curve.**
- 2. Centre of circle is always at the _____ distance from the points on circle.**
- 3. Radius is the distance between _____ of circle and any point on circle.**
- 4. Diameter is the _____ chord of circle.**
- 5. Radius is _____ of diameter of circle.**

[6-10] In the given figure name the following:-



- 6. Which point represents the centre of circle?**
- 7. Which line segment represents chord of Circle?**
- 8. Which line segment represents radius of circle?**
- 9. Which line segment represents diameter of circle?**
- 10. Which points lie on the circle?**

[11-15] Find the length of diameter of circle, whose radius is :

- 11. 3 cm**
- 12. 8 cm**
- 13. $4\frac{1}{2}$ cm**
- 14. $\frac{1}{2}$ cm**
- 15. $7\frac{1}{2}$ m**

[16-20] Find the radius of circle, whose diameter is :

- 16. 25 cm**

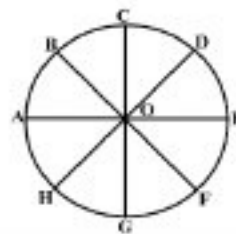
17. 16 cm

18. 17 cm

19. 21 cm

20. 10 m

[21-25] Answer the following questions according to the given figure:-



21. How many radii are drawn in the figure?

22. How many diameters are drawn in the figure?

23. Name the centre of circle.

24. Name all the radii of circle.

25. Name all the diameters of circle.

[26-30] Find the odd one out:

26.



27. Wheel, Pen, Book, Scale.

28. Bangle, Coin, Tyre, Sandwich.

29.



30.



[31-35] According to the given figure, give names that represents the following:

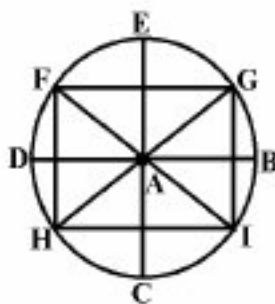
31. Centre of circle

32. Radii

33. Chords

34. Diameters

35. Points on circle



[36-40] Which part of the circle is represented by the following:

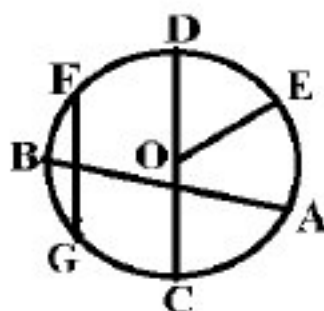
36. O = _____

37. AB = _____

38. OE = _____

39. FG = _____

40. CD = _____



[41-45] Fill in the blanks with correct answers:

41. A circle always has _____ centre.

42. A circle is formed by _____ line.

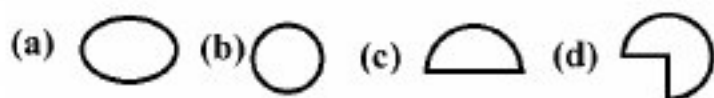
43. The _____ divides the circle into two equal parts.

44. Centre is always _____ the circle.

45. Diameter of circle is sum of _____ radii.

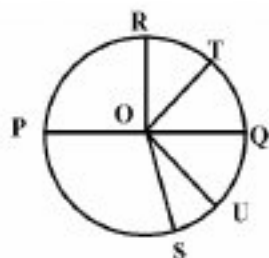
[46-50] Answer the following questions:

46. Which of the following is a circle?

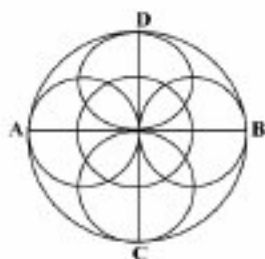


47. If the radius of circle is $9\frac{1}{2}$ cm, then what will be the length of its diameter?

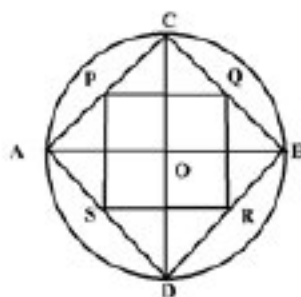
48. In the given figure, name the chord.



49. Find the number of circles in the given figure.



50. In the given figure, how many chords are there in circle?



ANSWERS:

Q. No.	Answers	Q. No.	Answers
1	Closed	16	$12\frac{1}{2}$ cm
2	Same	17	8 cm
3	Centre	18	$8\frac{1}{2}$ cm
4	Longest	19	$10\frac{1}{2}$ cm
5	Half	20	5 m
6	P	21	8
7	XY, YZ	22	4
8	PY, PQ, PZ	23	0
9	YZ	24	OA, OB, OC, OD, OE, OF, OG, OH
10	X, Y, Z, Q	25	AE, CG, FB, DH
11	6 cm	26	
12	16 cm	27	Wheel
13	9 cm	28	Sandwich
14	1 cm	29	
15	15 m	30	

Q. No.	Answers	Q. No.	Answers
31	A	41	One
32	AB, AC, AI, AH, AD, AF, AE, AG	42	Curved
33	FG, GI, HI, FH	43	Diameter
34	EC, DB, FI, GH	44	Inside
35	B, C,D, E, F, G, H, I	45	Two
36	Centre	46	○ (b)
37	Chord	47	19 cm
38	Radius	48	PQ
39	Chord	49	6
40	Diameter	50	6

CHAPTER-11

AREA AND PERIMETER

Points to Remember:

➤ Area :

Area is the surface or region, enclosed by a plane figure within a closed boundary.



The shaded portion in the given figures represent the area of the figures.

● Units of Area Measurement

Area is measured in square units, i.e., the unit of area is square cm or square m or any other square unit.

Square metre can be written as sq. m.

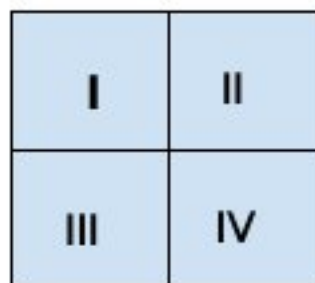
Square centimeter can be written as sq. cm.

Square kilometre can be written as sq. km.

- **Measurement of Area by Counting Squares**

Consider a figure made up of 4 equal squares as shown.

The area of each square in the figure is 1 sq. unit.



Area of Figure =

Area of square I + Area of square II

+ Area of square III + Area of Square IV

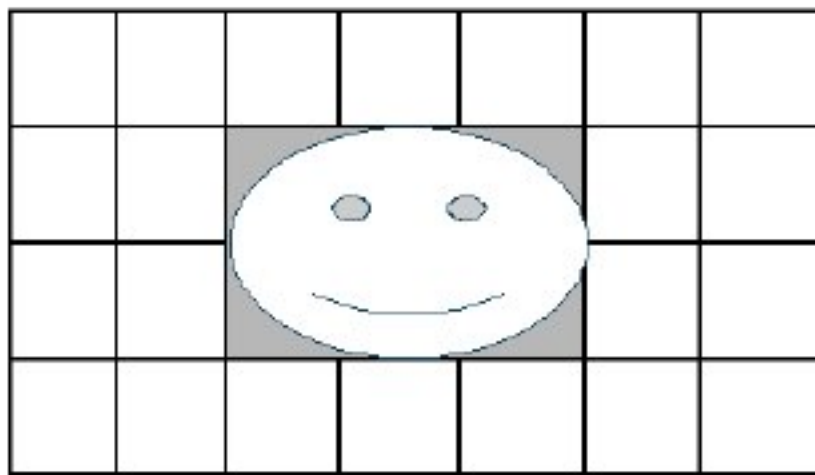
= 1 square unit + 1 square unit + 1 square unit

+ 1 square unit = 4 square units

To find the area of any plane figure, we keep the object on a square grid in which the side of each square is 1 cm.

Then we find the area of the object by counting the number of squares covered by it.

For example:

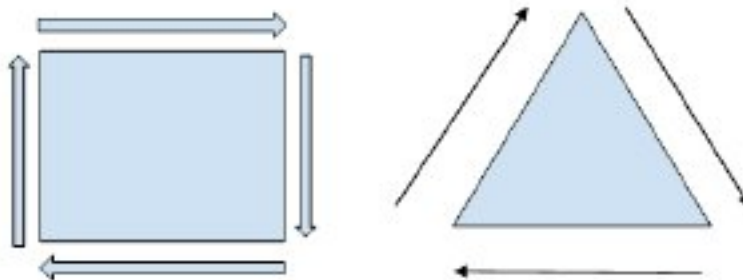


From the figure, we can say that the Emoji Sticker covers an area of 6 complete squares.

If the area of each square grid is 1 sq. cm, then we can say that the Emoji Sticker has an area of 6 sq. cm.

➤ **Perimeter**

Perimeter is the total length of the boundary of a plane closed figure. Perimeter is the boundary that encloses the area. In short, perimeter is the total or sum of all the sides of a given plane closed figure.



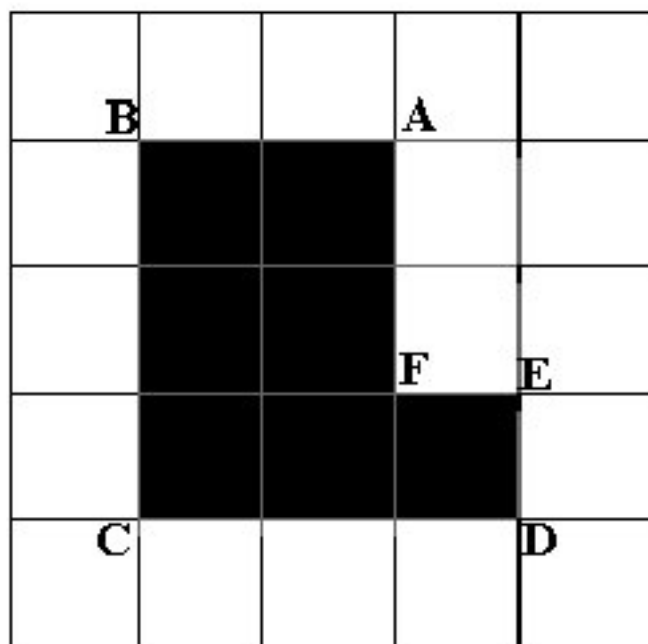
- **Units of Perimeter Measurement**

Perimeter is measured in the same units as that of length
i.e. cm, m, km etc.

- **Perimeter of shapes in the Square Grid**

A square grid is made up of a number of square units. It can be used to find the perimeter of a closed figure. We can find the perimeter of any closed plane figure drawn on a square grid by counting the number of unit lengths along the boundary of the given figure.

For example: Find the perimeter of the following figure.



Perimeter of the figure ABCDEF =

Length of AB + Length of BC + Length of CD + Length of DE + Length of EF + Length of FA

$$= 2 \text{ cm} + 3 \text{ cm} + 3 \text{ cm} + 1 \text{ cm} + 1 \text{ cm} + 2 \text{ cm} = 12 \text{ cm}$$

➤ **Area and perimeter of some figures**

- **Area of a Rectangle = Product of its length and breadth**
= Length $\times$ Breadth
- **Area of a Square = Side $\times$ Side**
- **Perimeter of a Rectangle or a square = Sum of lengths of its 4 sides**

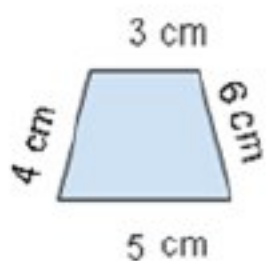
i.e., Perimeter of a Square = 4 $\times$ Side

Perimeter of a Rectangle = 2 (Length + Breadth)

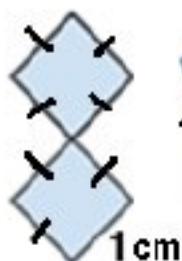
Questions:

- 1. Which concept is expressed in units of lengths?**
- 2. Which concept is expressed in square units?**
- 3. Fill in the blanks**
 - i. Area of the Square is**
 - ii. Area of the Rectangle is**
 - iii. Perimeter of the Square is**
 - iv. Perimeter of the Rectangle is**

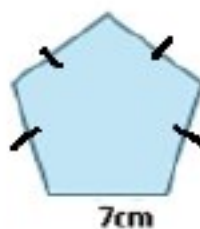
4. Find the perimeter of the following figures.



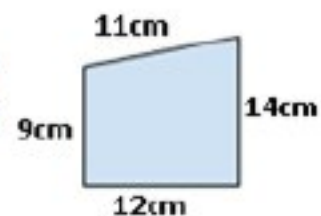
i.



ii.



iii.



iv.

5. Find length of the rectangle if perimeter is given.

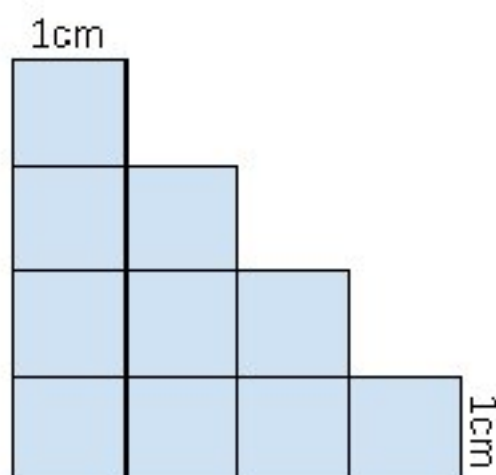
i. Perimeter = 20 cm



ii. Perimeter = 32 cm



6. Observe the given figure (made of square grids with side 1 cm each):



- i. Calculate the area of the given figure
 - ii. Calculate the perimeter of the given figure
7. Find the side of the squares if :
- i. Area = 16 sq. cm
 - ii. Area = 49 sq. cm
8. Find the perimeter of a triangle whose sides are 5 cm, 12 cm and 13 cm.
9. Find the perimeter of a square whose side is 9 cm.
10. Find the perimeter of a rectangle whose length is 8 cm and breadth is 5 cm.
11. Find the perimeter of a triangle whose all sides are 11 cm long.

12. Find the perimeter of a rectangle whose length is 6 cm and the breadth is half of its length.
13. Find the area of the square whose side is 5 cm.
14. Find the area of the rectangle whose sides are 10 cm and 6 cm respectively.
15. Find area of the rectangle whose breadth is 6 cm and length is double of its breadth.
16. Find side of the square whose perimeter is 44 cm.
17. Find length of the rectangle whose breadth is 4 cm and area is 48 sq. cm.
18. Which of the following has more area than the other
 - i. Square with side 8 cm
 - ii. Rectangle with length 9 cm and breadth 7 cm
19. Which of the following has more perimeter than the other?
 - i. Rectangle with length 6 cm and breadth 5 cm
 - ii. Square with side 5 cm
20. If a farmer wants to fence his field with wire. He will calculate the of his field.
21. You are making a vegetable garden. You will grow the plants on the available of the land.
22. Find the side of square with perimeter 36 cm.

23. Which of the multiplication expressions represent the area of the rectangle being 100 square units?

(a) 20×50 sq. units

(b) 5×20 sq. units

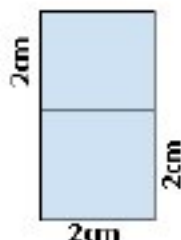
(c) 2×100 sq. units

24. Find area of the given figures:

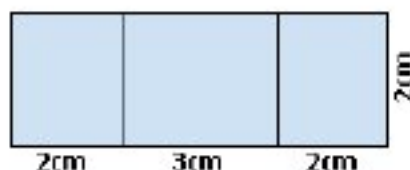
i.



ii.

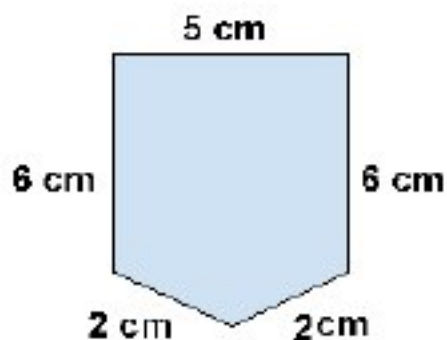


iii.

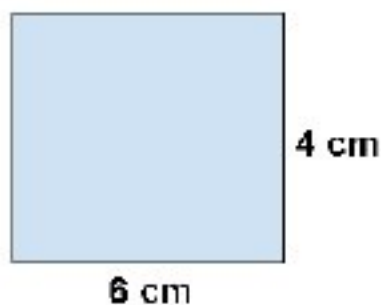


25. Which of the following has greater perimeter and by how much.

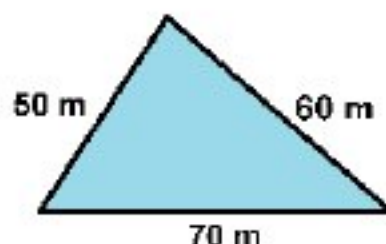
i.



ii.



[26-27] Bhumika is walking around on a triangular path as shown in the figure. Answer the following questions:

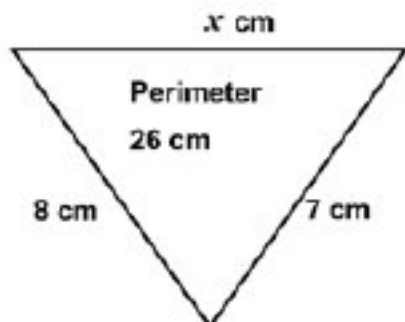


- 26. What is the total distance covered by her if she walks on the path once?**
- 27. What is the total distance covered by her if she walks on the path twice?**
- 28. A farmer's field is 24 m long and 22 m wide. How many metres of wire is required for fencing the field?**
- 29. Complete the given table**

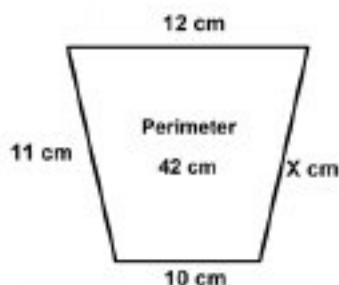
S.No	Shape	Length (l)	Breadth (b)	Perimeter (P)	Area (A)
i.	Square	?	?	48 m	?
ii.	Rectangle	12 m	?	42 m	?
iii.	Square	?	13 cm	?	?
iv.	Rectangle	?	11 m	?	165 sq. m

[30-33] Find the value of x :

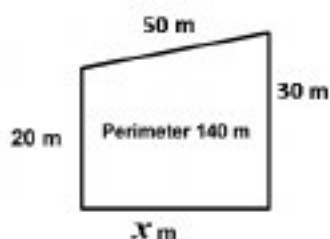
30.



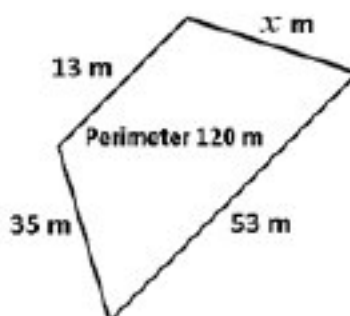
31.



32.



33.



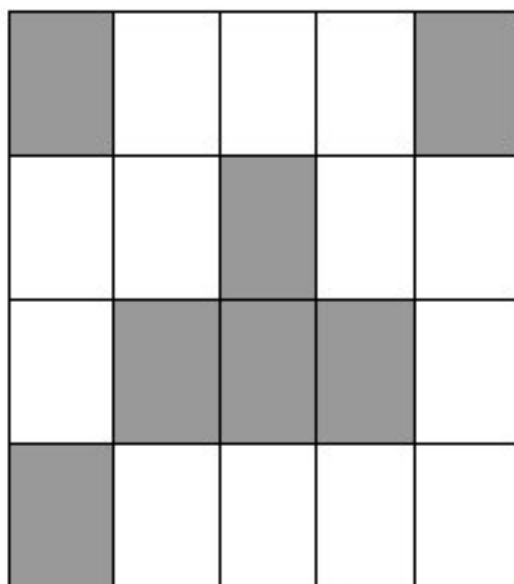
34. A square and a rectangle have same perimeter. The square has a side of 16 m. The breadth of the rectangle is 13 m. Find length of the rectangle.

35. A square and a rectangle have the same area. The area of the rectangle is 144 sq. cm. Find the side of the square.

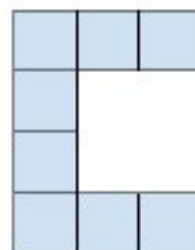
36. The area of a room is 130 sq. m. If the length of the room is 13 m. Find the perimeter of the room.

37. The perimeter of a square park is 60 m. Find its area.

38. The area of a square park is 81 sq. m. Find its perimeter.
39. The perimeter of the rectangular board is 56 cm. If the breadth is 12 cm. Find the area of the rectangular board.
40. Find area of the shaded region if the side of each square grid is 1 cm.

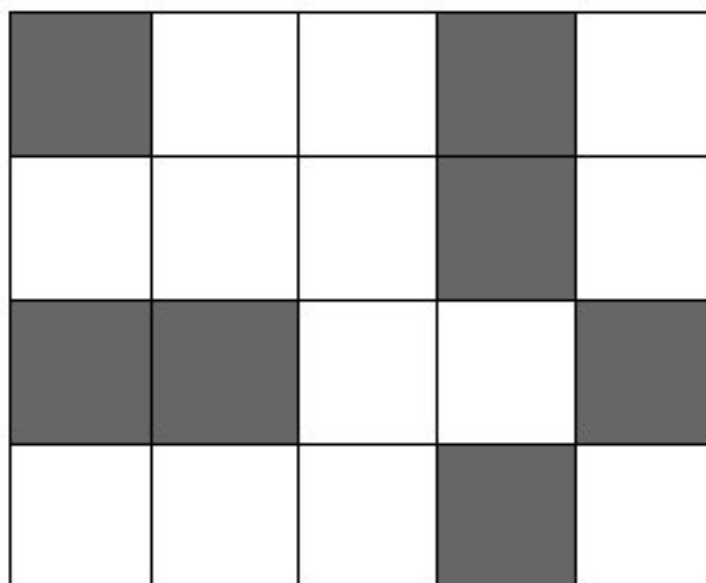


- [41-42] In the given figure, if the side of each square is 1 cm, then answer the following questions:



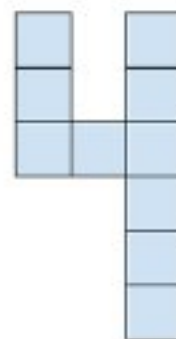
41. Find the area.
42. Find the perimeter.
43. What is the difference in the areas of squares with sides 8 cm and 6 cm?
44. The length of a rectangle is twice its breadth. If the breadth is 10 cm. Find the perimeter of the rectangle.

- 45. Find the area of the unshaded region, if the side of each square grid is 1 cm.**



- 46. The perimeter of a square field is 80 m. If the cost of fencing the field is ₹ 10 per metre. Find the total cost of fencing the field.**
- 47. A room is 10 m long and 8 m broad. Find the total cost of carpeting the floor, if the rate of carpeting is ₹ 20 per sq. m.**

- [48-49] In the given figure, if the side of each square is 1 cm, then answer the following questions:**



- 48. Find the area.**
- 49. Find the perimeter.**

ANSWERS:

Q. N.	Answers	Q. N.	Answers
1.	Perimeter	11.	33 cm
2.	Area	12.	18 cm
3.	i. Side $\times$ Side	13.	25 sq. cm
	ii. Length $\times$ Breadth	14.	60 sq. cm
	iii. $4 \times$ Side	15.	72 sq. cm
	iv. $2 (\text{Length} + \text{Breadth})$	16.	11 cm
4.	i. 18 cm	17.	12 cm
	ii. 8 cm	18.	Square with side 8 cm
	iii. 35 cm	19.	Rectangle with length 6 cm and breadth 5 cm
	iv. 46 cm	20.	Perimeter
5.	i. 6 cm ii. 9 cm	21.	Area
6.	i. 10 sq. cm ii. 16 cm	22.	9 cm
7.	i. 4 cm ii. 7 cm	23.	(b) 5×20 sq. units
8.	30 cm	24.	i. 10 sq. cm ii. 8 sq. cm iii. 14 sq. cm
9.	36 cm	25.	Greater by 1 cm
10.	26 cm	26.	180 m

27.	360 m	39.	192 sq. cm
28.	92 m	40.	7 sq. cm
29.	i. $l = b = 12 \text{ m}$ $A = 144 \text{ sq. m}$ ii. $b = 9 \text{ m}$ $A = 108 \text{ sq. m}$ iii. $l = 13 \text{ cm}$ $P = 52 \text{ cm}$ $A = 169 \text{ sq. cm}$ $l = 15 \text{ m}$ $P = 52 \text{ m}$	41.	8 sq. cm
30.	$x = 11 \text{ cm}$	42.	18 cm
31.	$x = 9 \text{ cm}$	43.	28 sq. cm
32.	$x = 40 \text{ m}$	44.	60 cm
33.	$x = 19 \text{ m}$	45.	13 sq. cm
34.	Length = 19 m	46.	₹ 800
35.	12 cm	47.	₹ 1600
36.	46 m	48.	10 sq. cm
37.	225 sq. m	49.	22 cm
38.	36 m		

CHAPTER-12

SMART CHARTS

Points to Remember:

- **Data:** Information collected or given in the form of numbers is called data.
For example: Information related to the number of students present in a class during a week.
- **Data Handling:** Generally the collected data is in raw form. This data needs to be arranged in a proper order to get the desired result.
- **Smart Chart:** It is the visual representation of numerical data collected in various forms. It helps in making the data easy to understand and analyze.

Types of Smart Charts

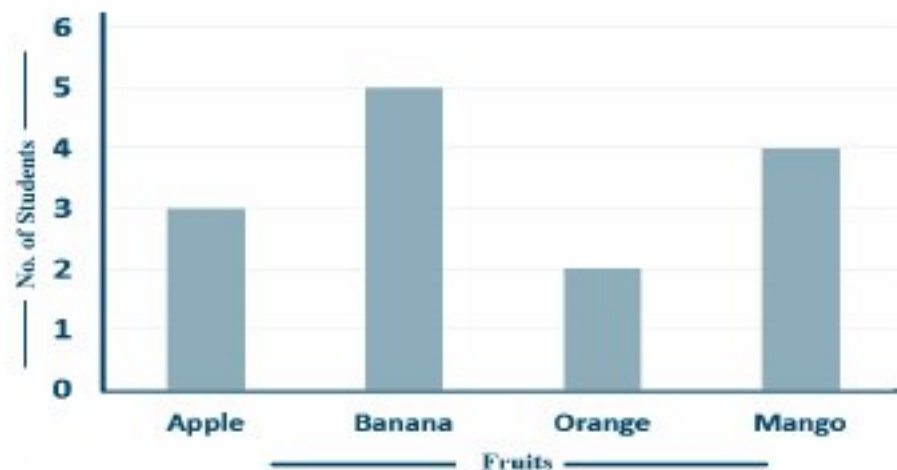
- **Pictograph:** A pictograph is the representation of data in the form of pictures or symbols.
For example: Total students in a class are 50. The following pictograph shows the number of students present during a week.

Here, One Emoji 🧑 = 7 Students

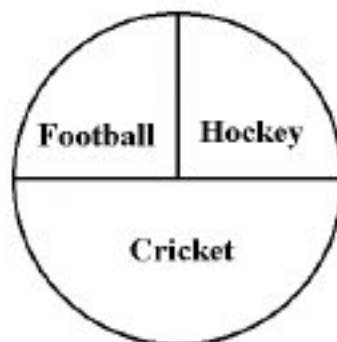
Day of the week	Students Present
Monday	🧑🧑🧑🧑🧑
Tuesday	🧑🧑🧑🧑🧑🧑
Wednesday	🧑🧑🧑
Thursday	🧑🧑🧑🧑🧑
Friday	🧑🧑🧑🧑🧑🧑🧑
Saturday	🧑🧑🧑🧑

- **Bar Graph**: A bar graph is the representation of data in the form of bars of different heights. Bar Graph consists of a horizontal and vertical line that meet at a point called zero. The bars can be Horizontal or Vertical. The bars are drawn by keeping equal space between them.

For example: Representation of favorite fruits of students in a class.



- **Pie Chart or Chapati Chart:** This is the representation of numerical data in circular form. The circle is divided into various sections representing various data.



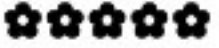
Children liking different sports

Questions

- Which Smart Chart uses bars to represent the data?
- [2-5] Fill in the blanks:
- A pictograph is the representation of data in _____.
- A Pie chart is in the form of _____.

4. In a pictograph, If  represents 6 Books. Then

a)  = _____

b)  = _____

5. In a pictograph, If  represents 10 Apples. Then

a)  = _____

b)  = _____

[6-9] The table given below shows how many hours four friends study every day after school hours. Observe the table and answer the questions.

S.No.	Name	hours of Study
1.	Ajay	2
2.	Jatin	1
3.	Suruchi	3
4.	Ravi	4

6. Who studies for 2 hours?

7. Who studies for 3 hours?

8. Who studies for 4 hours?

9. For how many hours do Jatin study?

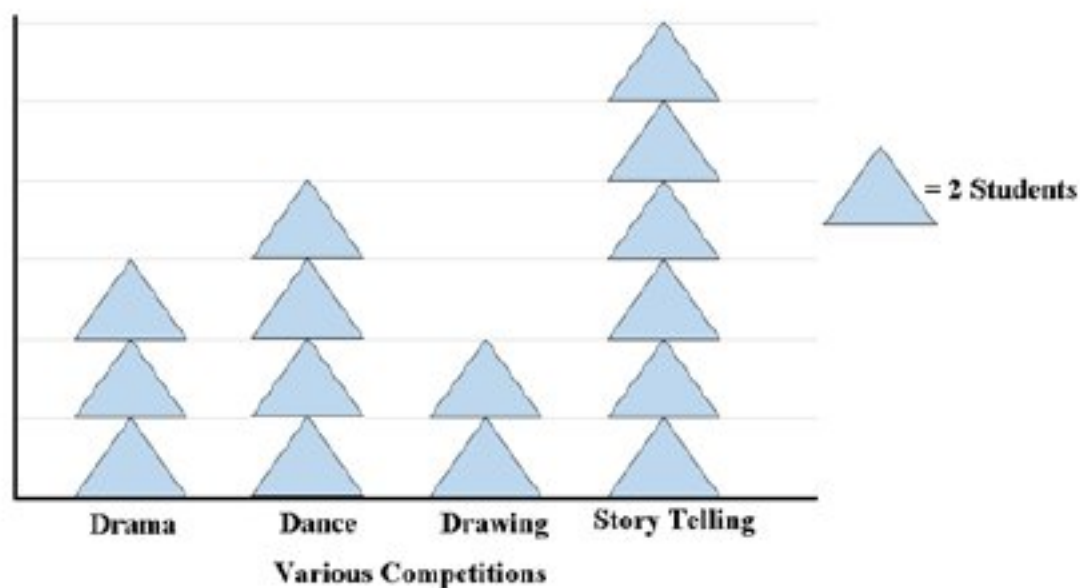
[10-14] The pictograph shows the number of people speaking different languages in an office. Observe the pictograph and answer the questions.

Language	Number of People
Hindi	☺ ☺ ☺ ☺ ☺
English	☺ ☺ ☺ ☺ ☺ ☺
Punjabi	☺ ☺
Marathi	☺

Here, ☺ = 5 People

- 10. How many people speak Hindi?**
- 11. How many people speak Punjabi?**
- 12. How many people speak Marathi?**
- 13. Which language is spoken by the most people?**
- 14. Which language is spoken by the least people?**

[15-19] The Chart given below shows the number of students participating in various competitions. Observe the chart and answer the questions.



15. How many students are participating in story telling competition?
16. How many students are participating in the drawing competition?
17. How many students are participating in the dance competition?
18. In which competition least number of students participated?
19. In which competition maximum number of students participated?
- [20-24] The table given below shows the number of various animals in a Zoo. Observe the table and answer the questions:

S. No.	Name of the Animals	Number
1.	Tiger	12
2.	Deer	56
3.	Zebra	22
4.	Bear	0
5.	Giraffe	16
6.	Elephant	8

20. The number of Tigers in the Zoo are _____.

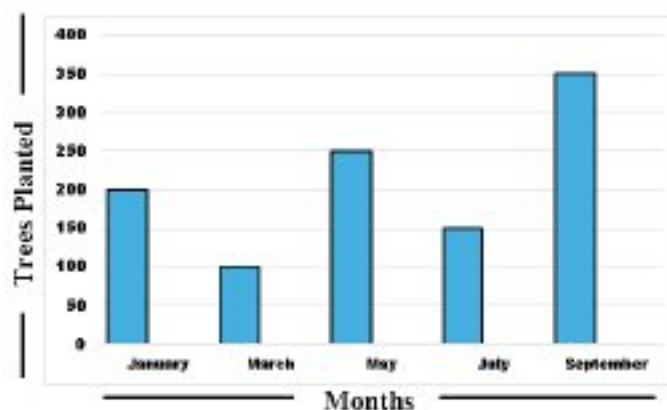
21. The number of Elephants in the Zoo are _____.

22. Which animal has the maximum number in the Zoo?

23. Which animal is not available in the Zoo?

24. What is the total number of Zebras and Giraffes in the Zoo?

[25-29] The bar graph shows the number of trees planted in various months of a year. Observe the graph and answer the questions:



25. How many plants are planted in the month of January?

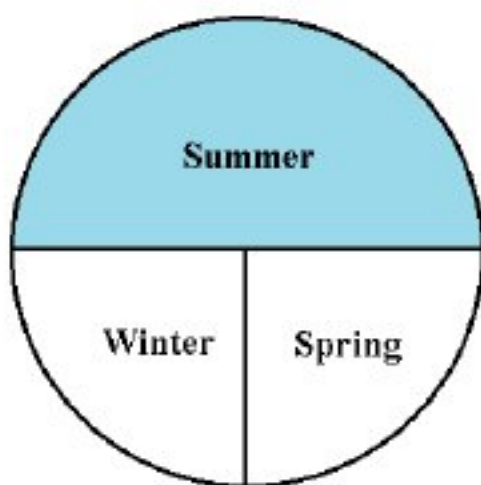
26. How many plants are planted in the month of July?

27. In which month of the year the least plants were planted?

28. In which month of the year the maximum plants were planted?

29. What is the difference between the number of plants planted in the months of September and January?

[30-31] The chapati chart shows the seasons liked by the students of a class.



30. How many students like summer season out of total students?

- i. Half ii. One- Fourth iii. Three- Fourth

31. How many students like the winter season out of total students?

- i. Half ii. One - Fourth iii. Three - Fourth

[32 - 36]The pictograph shows the number of Mobile Phones sold per day in a week in a shop. Observe the pictograph and answer the questions:

Week Day	Number of Mobiles Phones Sold
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

Here,  = 10 Mobile Phones

- 32. How many mobile phones are sold on Wednesday?**
- 33. How many mobile phones are sold on Friday?**
- 34. On which day of the week the sale was highest?**
- 35. Find the total number of Mobile Phones sold on Tuesday and Saturday together.**

36. On which day only 10 Mobile phones were sold?

[37-41] The table given below shows different kinds of dishes liked by some people in a restaurant. Observe the table and answer the following questions:

S.No.	Name of the Dish	Number of People
1.	Pav Bhaji	18
2.	Kadhi Chawal	45
3.	Dosa	26
4.	Halwa	28
5.	Dal Chawal	30

37. How many people liked Dosa?

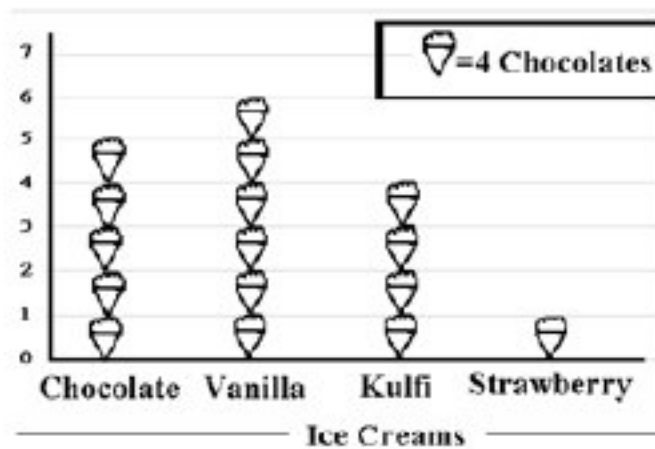
38. How many people liked Pav Bhaji?

39. How many people liked Halwa?

40. How many people liked Dal Chawal?

41. What is the difference between the number of people liking Kadhi Chawal and Dal Chawal?

[42-45] The chart given below shows the children liking different Ice Cream Flavours. Observe the chart and answer the questions.



42. How many children like Vanilla Ice Cream?

43. How many children like Chocolate Ice Cream?

44. How many children like Kulfi more than the Strawberry Ice Cream?

45. Which ice cream is the least liked?

[46- 48] The chapati chart shows the number of various things sold from a shop in a day:



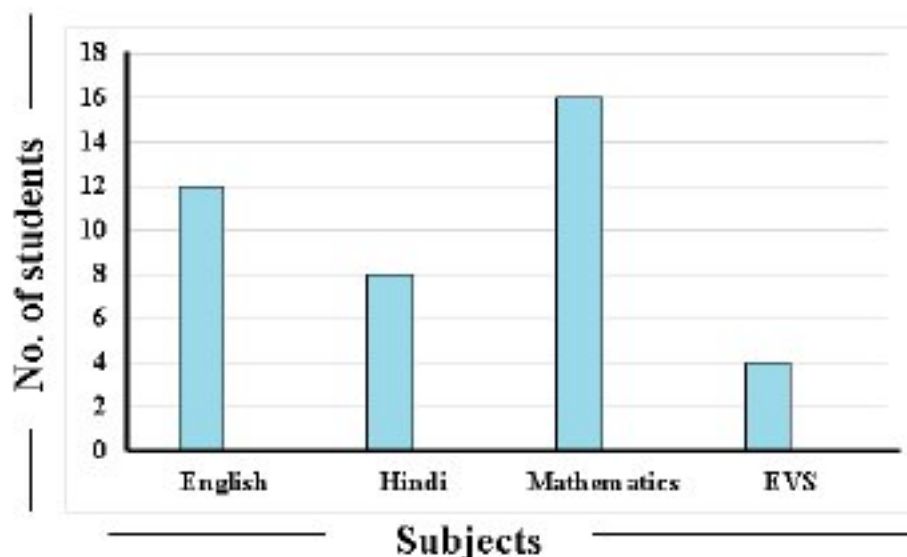
46. Which item is sold the most?

47. Which item is sold less - Bottles or Umbrella?

48. What portion of the total sale is the sale of the Geometry boxes?

- i. Half**
- ii. One -fourth**
- iii. Three – fourth**

[49-52] The bar graph given below shows the number of students interested in various subjects in a class. Observe it and answer the questions:



49. How many students are interested in Hindi?

50. How many more students are interested in English than EVS?

51. In which subject most of the students are interested?

52. What is the total number of students in the class?

Answers

Q.No.	Answers	Q.No.	Answers
1.	Bar Graph	19.	Story telling
2.	Pictures or Symbols	20.	12
3.	Circle	21.	8
4.	a) 18 Books b) 30 Books	22.	Deer
5.	a) 60 Apples b) 90 Apples	23.	Bear
6.	Ajay	24.	38
7.	Suruchi	25.	200
8.	Ravi	26.	150
9.	1 hour	27.	March
10.	25	28.	September
11.	10	29.	150
12.	5	30.	Half
13.	English	31.	One -fourth
14.	Marathi	32.	40
15.	12	33.	30
16.	4	34.	Monday
17.	8	35.	70
18.	Drawing	36.	Thursday
37.	26	45.	Kulfi
38.	18	46.	Bottle
39.	28	47.	Umbrella
40.	30	48.	One - fourth
41.	15	49.	8
42.	24	50.	8
43.	20	51.	Mathematics
44.	12	52.	40

CHAPTER-13

RIDDLES

QUESTIONS:

[1-3] Identify the shapes from the riddles:

- 1. I am a 3D shape with twelve edges. Six equal square faces make me a sturdy mate. What shape am I?**
- 2. From top, I look like a circle. I have two curved edges. I have two circular faces and one curved face. Which 3D shape am I?**
- 3. I am a solid figure. I have no faces or edges. I am round. Which 3D shape am I?**
- 4. In a building there are 100 rooms. Painter was asked to write numbers 1 to 100 on the doors. How many times will the painter have to write the number 5?**
- 5. I am a currency note used by people. If 4 similar notes like me are combined, the value becomes equal to a ₹ 2000. What am I?**
- 6. I am a currency note used by people. If 5 similar notes like me are combined, the value becomes equal to a ₹ 500 note. What am I?**

7. The name of the month has 5 letters and has more than 30 days. Identify the name of the month.

[8-10] Identify the two digit number hidden in the riddles:

8. My value is less than 20. I am exactly half way between 10 and 20. What am I?
9. I am a multiple of 5. I am greater than 40 and less than 60. The sum of my digits is 9. What am I?
10. I am an odd number. I have 3 tens. My ones digit is 2 more than tens digit. What am I?

[11-13] Identify the fractions from the riddles:

11. I am a proper fraction. My numerator is halfway between 0 and 10. My denominator is 2 more than the numerator. Who am I?
12. I am an improper fraction. My numerator is 2 less than 9. The sum of numerator and denominator is 10. Who am I?
13. I am an improper fraction. My numerator is 4 less than 2 tens. My denominator is 2 more than 5. Who am I?

[14-16] Identify the number from the riddles:

14. When two numbers are added together their sum is 36. One of the number is 4 more than 2 tens. Find the other number.

15. I am thinking of a number. If you double it and then add 5, the result is 25. What number am I thinking?

16. I am an odd number. If you subtract 2 less than 3 tens from me, the result is 3. What am I?

[17-18] Identify the 3 digit number from the riddles:

17. I am a three digit number. The tens digit is largest single digit number. Hundreds digit is 3 less than tens digit. The sum of ones and hundreds digit is 11. What am I?

18. I am a 3 digit number. My tens digit is 5 more than my ones digit and my hundreds digit is eight less than my tens digit. What am I?

19. There are 4 boys, each boy has 4 cars, and each car has 4 wheels. How many total wheels are there?

20. There are 5 students in a class and each student brings a gift for the other 4 students. How many total gifts are there?

[21-25] In a magic square, each row, column and diagonal add up to the same total. Find the missing numbers A, B, C, D and E in the following magic squares:

21. The total is 18

3	10	A
---	----	---

B	6	4
7	C	9

22. The Total is 15

A	9	2
B	5	D
8	C	6

23. The Total is 45

A	9	12
B	15	27
18	C	D

24. The total is 34

7	A	1	14
2	13	B	11
C	3	10	5
9	6	15	D

25. The total is 50

A	13	9	20
18	11	B	6
19	C	14	7
D	16	12	E

[26-27] Find the value of X and Y from the digits 1 to 3 in the squares below:

26.

$$\begin{array}{r}
 \boxed{X} \boxed{5} \boxed{4} \\
 \times \quad \quad \boxed{Y} \\
 \hline
 \boxed{4} \boxed{6} \boxed{2}
 \end{array}$$

27.

$$\begin{array}{r}
 \boxed{X} \boxed{5} \boxed{3} \\
 \times \quad \quad \boxed{4} \\
 \hline
 \boxed{6} \boxed{1} \boxed{Y}
 \end{array}$$

28. If

$$5 + 10 = \triangle + 7$$

$$\square + \triangle = 3 + 9$$

$$\square - \bigcirc = 10 - 8$$

then, find the value of $\bigcirc + \triangle + \square$

29. If

$$\bigcirc + \bigcirc = 10$$

$$\bigcirc \times \square + \square = 12$$

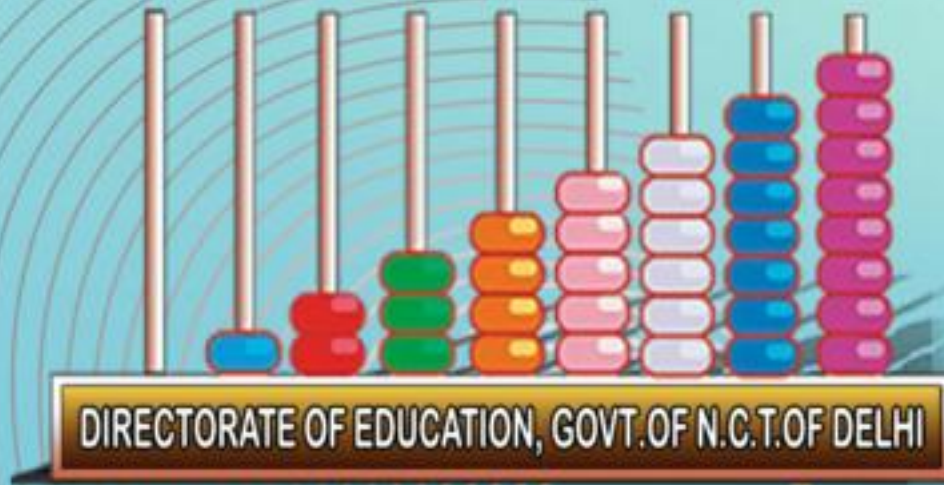
$$\bigcirc \times \square - \triangle \times \bigcirc = \bigcirc$$

then find the value of $\triangle$

30. I am a four digit number. The ones digit is largest single digit number. The tens digit is 7 less than ones digit. The hundreds digit is twice the tens digit and thousands digit is twice the hundreds digit. What am I?

Answers

Q. No.	Answers	Q. No.	Answers
1.	Cube	16.	31
2.	Cylinder	17.	695
3.	Sphere	18.	194
4.	20 Times	19.	64
5.	₹ 500 note	20.	20
6.	₹ 100 note	21.	A=5 , B= 8, C= 2
7.	March	22.	A=4 , B=3, C=1, D=7
8.	15	23.	A=24 , B= 3, C=21, D=6
9.	45	24.	A=12 , B=8, C=16, D=4
10.	35	25.	A=8 , B=15, C=10, D=5, E=17
11.	$\frac{5}{7}$	26.	X= 1, Y= 3
12.	$\frac{7}{3}$	27.	X= 1, Y= 2
13.	$\frac{16}{7}$	28.	14
14.	12	29.	1
15.	10	30.	8429



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