

MATHEMATICS

MATHEMATICS

LEARNING OUTCOMES
BASED
MODEL TEST ITEMS

CLASS - 6



6

MATHEMATICS



State Council of Educational Research and Training
Telangana, Hyderabad

CLASS VI



The Government of Telangana



6th Class

Mathematics

**Learning Outcomes
based**

MODEL TEST ITEMS



State Council of Educational Research and Training,
Hyderabad, Telangana

FOREWORD

Imparting quality education involves ensuring that all the students have achieved the prescribed competencies and learning outcomes by the time they complete schooling. It's commendable that the government is taking steps to improve the quality of education through strategies and action plan to achieve class-specific and subject-specific Learning outcomes by the students.

In order to improve our position at the national level, there is an earnest need to improve the competencies of students through effective teaching learning process. Keeping in view, to support teachers in achieving these prescribed competencies and learning outcomes, SCERT has prepared Item banks for different subjects in English, Telugu and Urdu media. By clearly specifying learning outcomes and providing model items, teachers are given the tools they need to align their teaching strategies with the desired outcomes. This approach not only supports teachers but also empowers them to adapt their methods to suit the needs of their students effectively.

Efforts like these demonstrate a commitment to continuous improvement in education, aiming to elevate the quality of learning and ultimately enhance student learning outcomes. With dedicated support from educational institutions and stakeholders, the goal of achieving higher scores in assessments becomes more attainable.

I appreciate the Faculty of SCERT and the content developers for their untiring efforts in bringing out these Item banks which will be largely useful to teachers and students in getting the desired results. Further I thank Principal Secretary, Education Department, Commissioner, Department of School education and State Project Director, Samagra Shiksha for their unflinching determination to elevate the state's position by their continuous guidance and support.

Director
SCERT, Telangana

Guidelines

National Achievement Survey is a national level large-scale competency based assessment will be conducted to obtain information about the learning achievement of students of Classes 3rd, 6th and 9th studying in State Govt. schools, Govt. Aided schools, Private Unaided and Central Govt. schools. NAS does not provide scores for individual student/school.

The National Achievement Survey will be conducted in the month of November in Language, Mathematics & Environmental Studies for classes 3rd& 6th and for class 9th in Modern Indian Language, Mathematics, Science, Social Science and English. The programme “Strategies and Action Plan” is designed to give awareness to the Teachers regarding question patterns and learning outcomes so that Teachers can ensure the achievement of class and subject specific learning outcomes of their students.

Guidelines to the teachers:

- It should be noted that **objective** of this programme is to **achieve subject- specific and class – specific learning outcomes by the students.**
- Identify the learning outcomes in each unit.
- Teaching learning process should be conducted in alignment with the achievement of learning outcomes.
- Classroom management should be done to encourage the students’ active participation, questioning, doing activities, reflection and elaboration in the learning process.
- Priority should be given interactive method of teaching.
- Teachers can modify their teaching strategies according to their class-room situations.
- In regular period concentrate on the learning outcomes of the lesson taught and in special periods focus should be on any one of the learning outcomes.
- Identify the different patterns of questions related to the learning outcomes and make the students to practice them.
- Teachers should discuss the answers after completion of the mock tests.
- Teacher should maintain the list of the learning outcomes discussed in the class-room.

Guidelines to the Headmasters:

- School level special action plan should be prepared and implemented in the school.
- For conducting special class, ensure that daily one period is allotted. In that special class, practice on learning outcomes of one subject should be done. Cover all subjects in a week accordingly.
- Ensure that the designated special class is conducted smoothly as per plan.
- Ensure that learning outcomes should be covered in both regular and special periods.
- Review the progress of the students at school level after each mock test.

LO Number LO Name

- M401** Applies operations of numbers in daily life situations.
- M412** Explores the area and perimeter of simple geometrical shapes (triangle, rectangle, square) in terms of given shape as a unit.
- M418** Calculates time intervals/ duration of familiar daily life events by using forward or backward counting /addition and subtraction.
- M-421** Represent the collected information in tables and bar graphs and draws inferences from there.
- M-501** Reads and writes numbers bigger than 1000 being used in her/his surroundings.
- M-504** Estimates some difference product and quotient of numbers and verifies the same using different strategies like using standard algorithms or breaking number and then using operation.
- M-505** Finds the number corresponding to part of a collection
- M-506** Undentifies and forms equivalent fractions of a given fraction.
- M-508** Converts fractions into decimals and vice-versa
- M-509** Classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing.
- M-512** Relates different commonly used larger and smaller units of length weight and volume and converts larger units to smaller units and vice versa.
- M-513** Estimates the volume of a solid body in known units.
- M-514** Applies the four fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals.
- M-515** Identifies the pattern in triangular numbers and square number.
- M-516** Collects data related to various daily life situations, represents it in tabular form and as bar graphs and interprets it.

LO: M401

Applies operations of numbers in daily life situations.

1. A shop keeper purchased 25L of Sunflower oil and 38L of Rice bran oil. If the price of 1L Sunflower oil is ₹ 148 and the price of 1 L Rice bran oil is ₹ 135, then how much money did he spend?

(A) ₹ 5130 (B) ₹ 3700
(C) ₹ 8830 (D) ₹ 9324
2. Nehanth's father gave him ₹ 1550 and his mother gave him ₹ 1865 to purchase things needed for him at school. He spent ₹ 1280 to purchase books and ₹ 1647 for stationery items and school bag. Then find how much money is left with him?

(A) ₹ 2927 (B) ₹ 488
(C) ₹ 3415 (D) ₹ 6342
3. A cloth merchant bought 42 meters of shirt cloth with the amount of ₹ 2730. Then, what is the price of 25 meter cloth?

(A) ₹ 1565 (B) ₹ 1665
(C) ₹ 1652 (D) ₹ 1625
4. Shanoor started from his house in the morning and travelled 1 hour by Auto, 2 hours by Bus and reached his village at 11:30 A.M. At what time did he start from his house?

(A) 9:00 A.M (B) 8:30 P.M
(C) 8:30 A.M (D) 9:30 A.M
5. Karthik and Charan have saved some amount in their kiddy banks. After a year when they opened their kiddy banks, the money saved is as below:

	₹ 500	₹ 200	₹ 100	₹ 50	₹ 20
Karthik	2	6	12	4	5
Charan	3	6	6	2	2

Now identify the incorrect statement from the given statements.

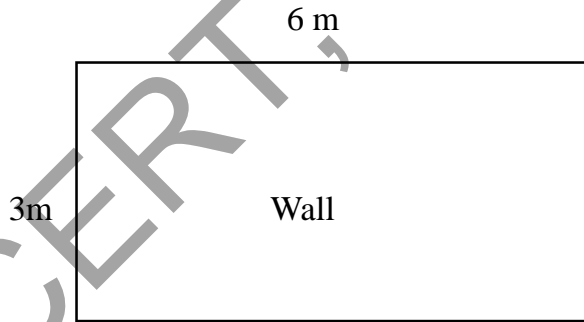
- (A) Karthik saved ₹ 3700 (B) Charan saved ₹ 3640
 (C) Karthik saved ₹ 260 more than Charan (D) Charan saved ₹ 3440
6. 96 students and 8 teachers of a school went to the Planetarium. The entry ticket price for adults is ₹ 150 and for children is ₹ 80. Find the total amount spent for the tickets.
- (A) ₹ 1200 (B) ₹ 8880
 (C) ₹ 7680 (D) ₹ 6480
7. Shanti went to a dry fruits shop and purchased 300g of Cashew, 200g of Badam, 200g of Pista and gave ₹ 1000 to the shopkeeper.

Dry Fruits Shop – Price List

Item	Price for 100g
Badam	₹ 80
Cashew	₹ 110
Pista	₹ 150
Walnut	₹ 180

How much amount did the shopkeeper give back to her?

- (A) ₹ 790 (B) ₹ 870
 (C) ₹ 130 (D) ₹ 210
- 8.



Sriyalli is planning to decorate one side of her room's wall with a wall paper. The cost of the wall paper is ₹ 645 per square meter. How much money does she require to decorate the wall?

- (A) ₹ 11610 (B) ₹ 23220
 (C) ₹ 5805 (D) ₹ 3870

9. There are 36 chalk piece boxes in a carton. If the cost of 1 carton is ₹. 2016, find the cost of one box.

- (A) ₹ 46 (B) ₹ 36 (C) ₹ 66 (D) ₹ 56

10. A rice shop is selling 3 types of rice bags and the price is as listed below:

Rice Bag type	Price per bag
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A1-grade	₹ 1840
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A2-grade	₹ 1560
----------	--------

A3-grade	₹ 1250
----------	--------

If the shopkeeper sold eight A1- grade, twelve A2-grade and fifteen A3-grade rice bags in a day, calculate the total amount the shopkeeper earned by selling the rice bags on that day.

- (A) ₹ 52190 (B) ₹ 25190 (C) ₹ 52910 (D) ₹ 59210

11. In an election 3 candidates contested. If the elected candidate got 3,12,156 votes, One of the defeated Candidate got 1,09,054 votes then how many votes does the 3 rd candidate got if the total votes polled are 5,08,211.

- (A) 2,31,01 (B) 87,001 (C) 4,21,210 (D) 3,99,157

12. The price of a book is ₹ 28.50 then the cost of 15 such books is _____

- (A) ₹ 42,750 (B) ₹ 4,275 (C) ₹ 427.50 (D) ₹ 42.75

13. Keerthi has ₹ 89. Her Mother gave her ₹ 21. She bought a gift that costs ₹ 50 to her friend on her birthday. How much money is left with her?

- (A) ₹ 160 (B) ₹ 60 (C) ₹ 39 (D) ₹ 28

Key

1. C	2. B	3. D	4. C	5. B	6. B	7. D	8. A	9. D	10. A
11. B	12. C	13. B							

Explanation

1. Total cost for 25Lof Sunflower oil = $25 \times 148 = ₹ 3700$

Total cost for 38L ofRice bran oil = $38 \times 135 = ₹ 5130$

Total money he spent = $₹ 3700 + ₹ 5130 = ₹ 8830$

2. Money given by father = ₹ 1550

Money given by mother = ₹ 1865

Total money given by both = ₹ 3415

Money spent for purchasing Books, Stationery and bag
= ₹ 1280 + ₹ 1647 = ₹ 2927

Money left = ₹ 3415 – ₹ 2927 = ₹ 488

3. (UNITARY method)

Amount for 42 meters of shirts cloth = ₹ 2730

Price of the cloth per meter = ₹ 2730 ÷ 42 = ₹ 65

Price of that cloth for 25 metres = 25 × 65 = ₹ 1625

4. Total time travelled by Shanoor by both Auto and Bus = 1 hour + 2 hours = 3 hours

Time that he reached his village = 11:30 A.M

Time that he started from his house = 3 hours back from 11:30 AM = 8: 30 A.M

5. Amount saved by Karthik = $2 \times 500 + 6 \times 200 + 12 \times 100 + 4 \times 500 + 5 \times 20$
= ₹ 3700

Amount saved by Charan = $3 \times 500 + 6 \times 200 + 6 \times 100 + 2 \times 500 + 2 \times 20 = ₹ 3440$

Difference = ₹ 3700 – ₹ 3440 = ₹ 260

The statement (B) is incorrect.

6. Amount spent for teachers' tickets = $8 \times ₹ 150 = ₹ 1200$

Amount spent for students' tickets = $96 \times ₹ 80 = ₹ 7680$

Total amount spent = ₹ 7680 + ₹ 1200 = ₹ 8880

7. Cost of 300g Cashew = $3 \times ₹ 110 = ₹ 330$

Cost of 200g Badam = $2 \times ₹ 80 = ₹ 160$

Cost of 200g Pista = $2 \times ₹ 150 = ₹ 300$

Total cost = ₹. 330 + ₹ 160 + ₹ 300 = ₹ 790

Amount given by Shanti = ₹ 1000

Amount given by the shopkeeper = ₹1000 – ₹ 790 = ₹ 210

8. Area of the given wall = 6 meters × 3 meters = 18 sq.m

Cost of the wall paper per sq meter = ₹ 645

$$\text{Money required} = 18 \times ₹ 645 = ₹ 11610$$

9. Number of chalk piece boxes in the carton = 36

$$\text{Total cost of the carton} = ₹ 2016$$

$$\text{The cost of one box} = ₹ 2016 \div 36 = ₹ 56$$

10. Cost of A1-grade rice bags = $8 \times ₹ 1840 = ₹ 14720$

$$\text{Cost of A2-grade rice bags} = 12 \times ₹ 1560 = ₹ 18720$$

$$\text{Cost of A3-grade rice bags} = 15 \times ₹ 1250 = ₹ 18750$$

Total amount that the shopkeeper earned

$$= ₹ 14720 + ₹ 18720 + ₹ 18750 = ₹ 52190.$$

11. Votes got by elected candidate = 3,12,156

$$\text{Votes got by one of the defeated candidate} = 1,09,054$$

$$\text{Total votes polled} = 5,08,211$$

$$\text{Number of votes got by the 3rd candidate} = 5,08,211 - 3,12,156 - 1,09,054$$

$$= 87,007$$

12. Cost of 1 book = ₹ 28.50

$$\text{Cost of 15 such books} = 15 \times ₹ 28.50$$

$$= ₹ 427.50$$

13. Money with Keerthi = ₹ 89

$$\text{Money given by Mother} = (+) ₹ 21$$

$$\text{Total Money she has} = ₹ 110$$

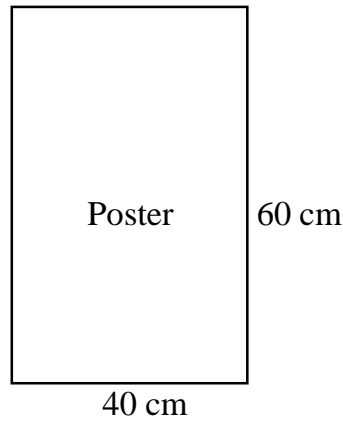
$$\text{Money spent} = (-) ₹ 50$$

$$\text{Money left} = ₹ 60$$

LO: M412

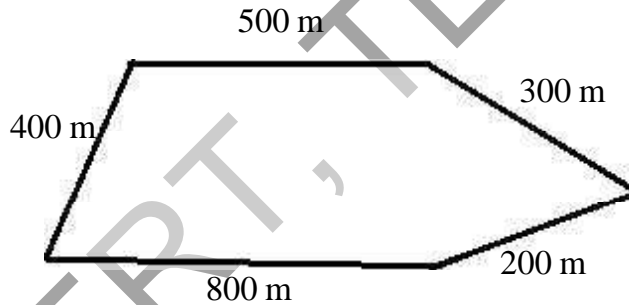
Explores the area and perimeter of simple geometrical shapes (triangle, rectangle, square) in terms of given shape as a unit.

1. Nandini is making a poster as a part of her project and wants to decorate the borders with a glitter tape. Find the minimum length of the tape she required?



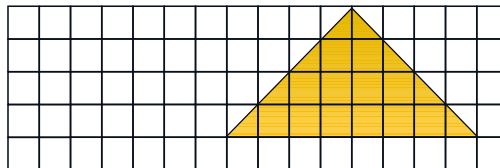
- (A) 100 cm (B) 160 cm (C) 200 cm (D) 140 cm

2. Vikas walks 3 times in the morning daily around a park. Find the total distance he walks in the morning.



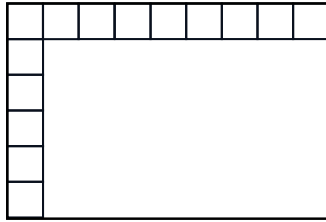
- (A) 2200 m (B) 4400 m (C) 1100 m (D) 6600 m

3. Find the area of the given figure.



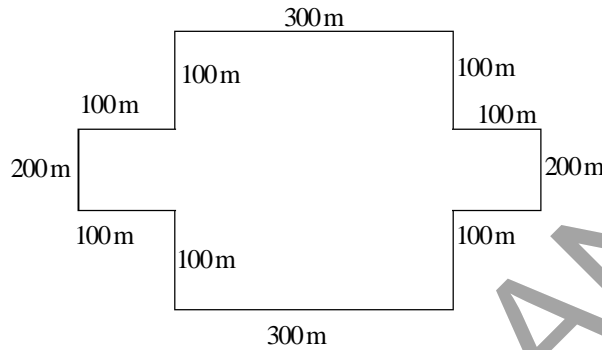
- (A) 16 sq.units (B) 24 sq.units (C) 12 sq.units (D) 20 sq.units

4. Find the area of the given figure.



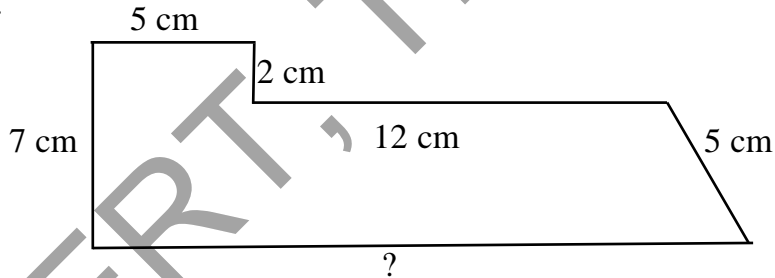
- (A) 14 sq units (B) 48 sq units (C) 36 sq units (D) 54 sq units

5. Find the perimeter of the given figure.



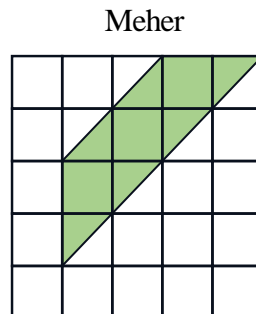
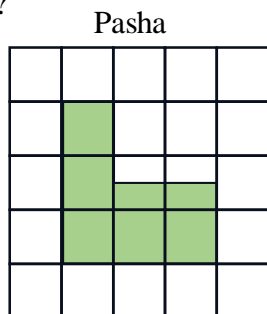
- (A) 700 m (B) 1 km 400 m (C) 1 km 800 m (D) 1 km 200 m

6. If the perimeter of the given figure is 51 cm, then find the length of the side that is not given.



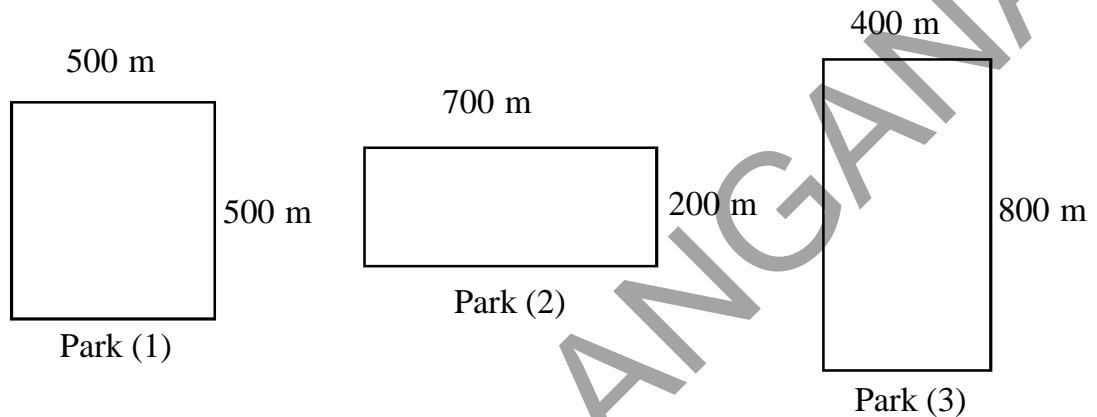
- (A) 19 cm (B) 20 cm (C) 31 cm (D) 12 cm

7. Pasha and Meher have purchased farm lands as shown in the figures. Whose land is bigger?



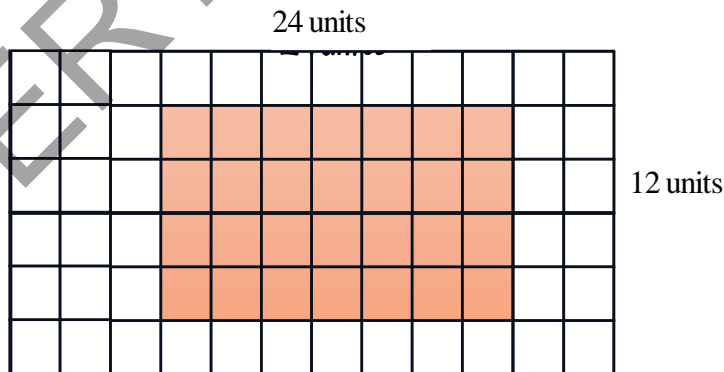
- (A) Pasha's land is bigger than Meher's land.
- (B) Meher's land has more area than Pasha's land.
- (C) Both Pasha's and Meher's lands are same.
- (D) Pasha's land has 2 units more than Madar's land.

8. There are 3 parks in a colony. If the colony welfare society decided to make the biggest among these 3 into a basketball ground, which Park will they choose?



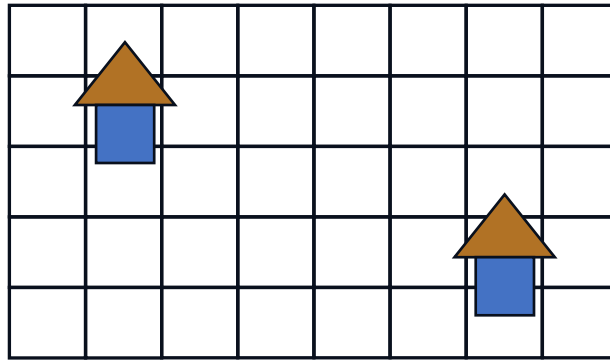
- (A) Park 2
- (B) Park 1
- (C) Park 3
- (D) Park 1 and Park 3 have same area. So, they can choose either Park 1 or Park 3.

9. Find the area of the given figure using grid lines and the measurements given. (1 sq. unit = 2 units)



- (A) 112 sq units
- (B) 1008 sq units
- (C) 28 sq units
- (D) 36 sq units

10. Shiva divided his field and his 2 houses equally to his 2 children. What is the area of the field that each child get?



- (A) 40 sq units (B) 9 sq units (C) 15 sq units (D) 20 sq units

Key

1. C 2. D 3. A 4. D 5. C 6. B 7. C 8. C 9. A 10. D

Explanation

1. Total length of the borders of the poster = $40\text{ cm} + 60\text{ cm} + 40\text{ cm} + 60\text{ cm} = 200\text{ cm}$.

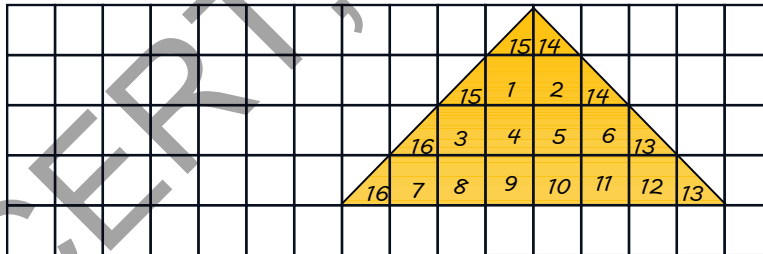
Total tape required = 200 cm

2. Total length around the park = $500\text{ m} + 300\text{ m} + 200\text{ m} + 800\text{ m} + 400\text{ m} = 2200\text{ m}$

Walking 3 times = $3 \times 2200\text{ m} = 6600\text{ m}$

Total distance walked = 6600m

3.



Area of the given figure = 16 sq. units

4. By counting there are 9 columns and 6 rows so

The area of the given figure = 6 units x 9 units = 54 sq.units.

5. $300 + 100 + 100 + 200 + 100 + 100 + 300 + 100 + 100 + 200 + 100 + 100$

= 1800 m

= 1 km 800 m

6. Given perimeter = 51 cm

Total length of the given sides = $7\text{cm} + 5\text{cm} + 2\text{cm} + 12\text{cm} + 5\text{cm} = 31\text{cm}$

Length of the side that was not given = $51\text{cm} - 31\text{cm} = 20\text{cm}$.

7. By counting the units in Pasha's land and Meher's land both of them occupy equal area.

8. Area of Park 1 = $500\text{m} \times 500\text{m} = 250000 \text{ sq.m}$

Area of Park 2 = $700\text{m} \times 200\text{m} = 140000 \text{ sq.m}$

Area of Park 3 = $400\text{m} \times 800\text{m} = 320000 \text{ sq.m}$

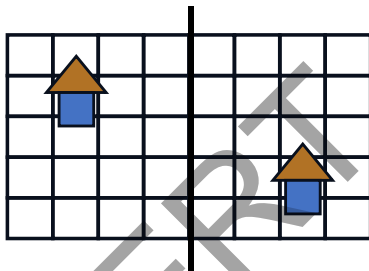
Park 3 has more area among 3 Parks. So, they have chosen Park 3.

9. The figure occupied 7 sq. units in columns and 4 sq. units in rows.

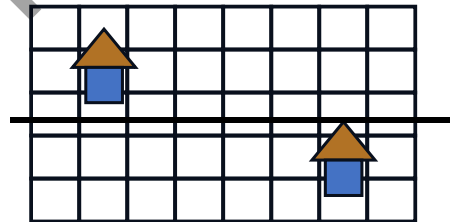
1 sq unit = 2 units therefore,

$14 \times 8 = 112 \text{ sq. units}$.

10.




Area: $4 \times 5 = 20 \text{ sq. units}$

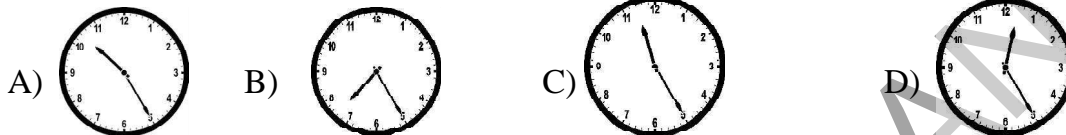



Area: $(2 \times 8) + 4 = 20 \text{ sq. units}$

LO: M418

Calculates time intervals/ duration of familiar daily life events by using forward or backward counting /addition and subtraction.

1.  Look at the time given in the clock. What is the time that will be indicated in the clock after 2 hours?



2.  Look at the time given in the clock. What is the time indicated in the clock half an hour before this time?

A) 3:00hrs B) 4:00hrs C) 4:30hrs D) 5:00hrs

3.  Clock-1  Clock-2

What is the difference of the time between clock-1 and clock-2 ?

A) 1:00 hrs B) 1:15hrs C) 1:03hrs D) 3:03hrs

4. Ravi eats lunch at 12:15 PM every day. One day Ravi had his meal at 11:45 AM. How earlier did Ravi eat on that day?


A) 0:45 hrs B) 0:50 hrs C) 0:15 hrs D) 0:30 hrs

5. Surya went out at 4:00 PM to play games and came home after 2 hours and 30 minutes. At what time did Surya come home?

A) 6h:30min B) 5 h:30 min C) 6 h:00 min D) 6 h:15 min

6. Latha wakes up at 6 AM every day. If one day she woke up 45 minutes late, at what time did she wake up?

A) 5:15hrs B) 5:45 hrs C) 6:45 hrs D) 6:15hrs

7.  Look at the time on the clock. Find out how much time the clock showed before 35 minutes.

- A) 5:15 hrs B) 5: 35hrs C) 6:35hrs D) 5:25hrs
8. Anil wakes up at 6AM and did yoga for 30 minutes, and takes one and a half hour to get ready and then leaves to school. At what time does Anil leave for school?
A) 7:00 am B) 8:00 am C) 8:30 am D) 7:30 am
9. If a bus leaves from Hyderabad at 9 AM and reaches Adilabad at 4:30 PM, how much time does the bus travel?
A) 6: 00hrs B) 7:00hrs C) 6:30hrs D) 7:30hrs
10. Find the time five hours before 3AM?
A) 20:00hrs B)22:00 hrs C)24:00hrs D)05:00hrs

Key

1. C 2.A 3. B 4. D 5. A 6. C 7. D 8. B 9. D 10. B

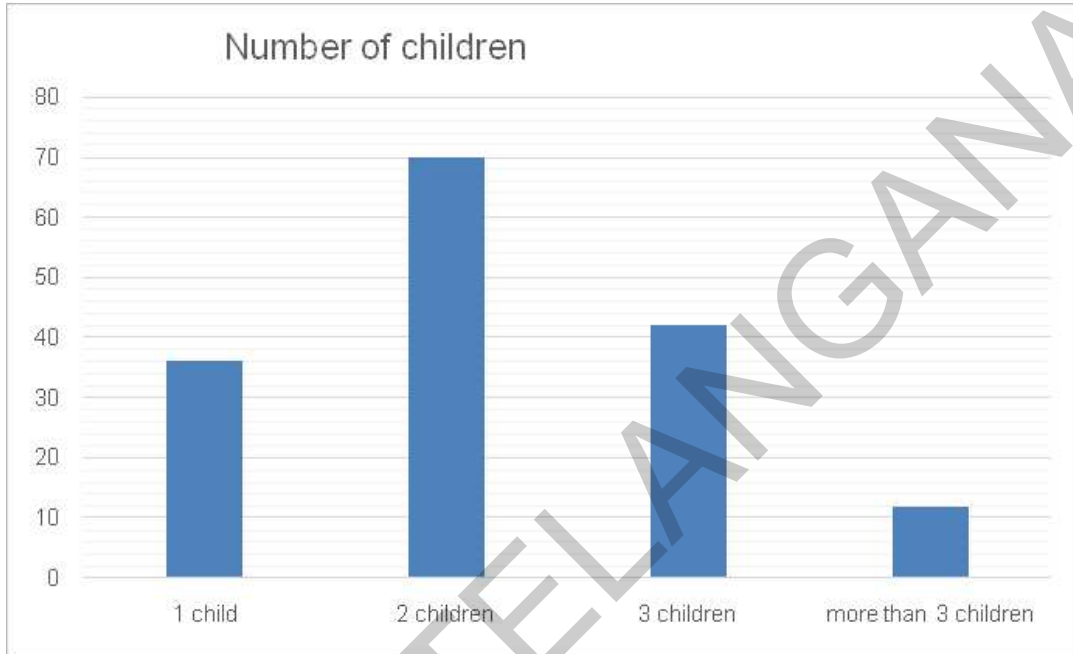
Explanation

- 1) Time 9:25hrs means 9 hours 25 minutes. After two hours the time in the clock shows the hour (small) hand at 11. And there is no change in minutes so the minute (large) hand is at 5. So two hours after 9 hours 25 minutes in the clock indicates 11:25hrs (11 hours 25 minutes) .
- 2) The time shown on the clock is 3 hours 30 minutes. Half an hour before this time, the minute (big) hand is at 12. So the clock shows 3 hours (3 hours).
- 3) The time shown by the first clock is 2 hours and the time shown by the second clock is 3 hours 15 minutes. That is (3:15 hrs – 2:00 hrs = 1:15 hrs). The second clock shows 1 hour 15 minutes more than the time shown by the first clock.
- 4) The time duration between 11:45 AM to 12:15 PM is 30 minutes.
- 5) The time Surya left to play is at 4:00 PM and played for 2 hours 30 minutes (4:00 hrs+ 2:30hrs = 6:30hrs) .So the time when he reached home is 6:30PM.
- 6) Latha wakes up at 6 o' clock every day. But one day she woke up 45 minutes late then the time was 6:45 AM.
- 7) The clock shows 35 minutes before 6:00hrs as 5 :25 hrs
- 8) Anil wakes up at 6AM and did yoga for 30 minutes, it will be 6 hours and 30 minutes. He takes one and a half hour to get ready to school. It will be 8:00 hours by the time he gets ready to school. Anil left for school at 8 AM.
- 9) 3 hours from 9 AM to 12 noon and 12 noon to 4:30PM is 4 hours 30 minutes .So by adding 3hours and 4 hours 30 minutes gives total of 7 hours 30 minutes.
- 10) In a 24-hour clock 22:00hrs is 5 hours before 3AM . Because from 3AM counting each hour backwards it is 2:00, 1:00, 00:00, 23:00, **22:00hrs** respectively.

LO :M-421:

Represent the collected information in tables and bar graphs and draws inferences from there.

1. The following figure shows the number of children in families living in a colony. As per the figure, how many families have 2 children?



- A) 36 B) 70 C) 42 D) 12
2. Look at the given table and find who saved more money and how much?

Name of the student	Money saved
Sonu	50
Neela	55
Sheeba	60

A) Sheeba- ₹55

B) Sonu – ₹ 45

C) Neela – ₹ 50

D) Sheeba and Neela – ₹ 50

3. Look at the given table.

● = 20 points

○ = 10 points

Who scored less points? And how much?

	Gold Coins Scored	Silver Coins Scored
Player1	● ● ●	○ ○ ○ ○
Player2	● ● ● ●	○ ○ ○
Player3	● ●	○ ○ ○ ○
Player4	● ● ● ●	○ ○

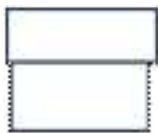
A) Player 1, 70 points

B) Player 3, 80 points

C) Player 1, 100 points

D) Player 3, 60 points

4. Find the total number of houses in a village using the given table.



= 2 houses



= 3 houses



= 5 houses

Type of house

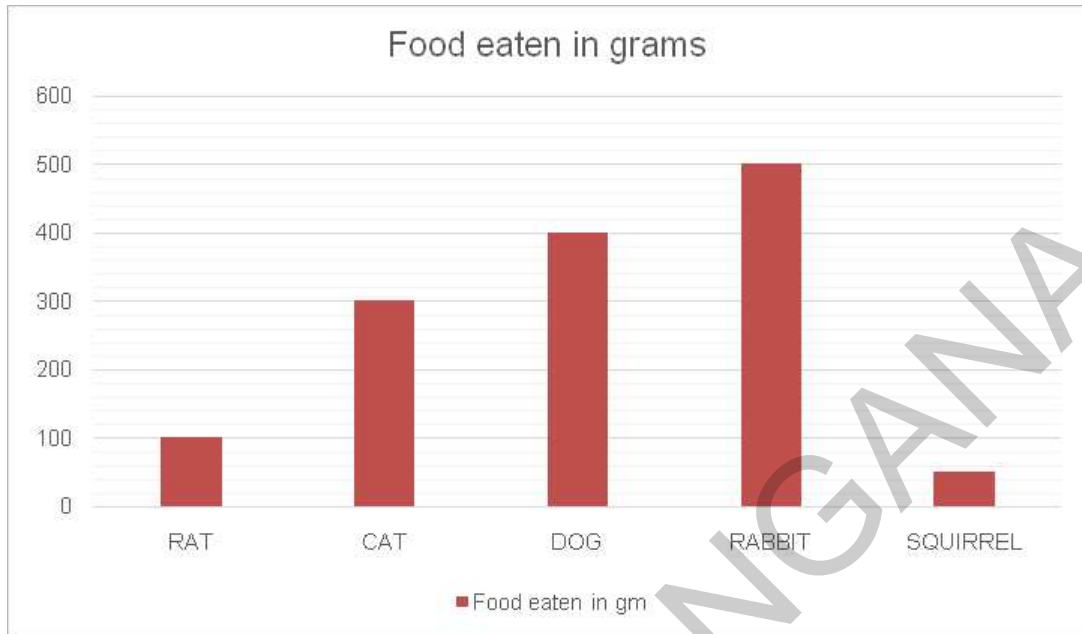
A) 57

B) 16

C) 32

D) 53

5. Observe the given graph and identify the incorrect statement.



1. Cat eats more than Squirrel. 2. Rat eats less than Dog.
 3. Cat eats less than Squirrel. 4. Rat eats more than Squirrel.

- A) 4 B) 3 C) 2 D) 1

6. The table given below shows the number of oil packets sold in a grocery shop in a week. Find the difference of the highest and the lowest number of packets sold in that week?

Day	Sun	Mon	Tue	Wed	Thurs	Fri	Sat
No. of oil packets sold	16	18	15	22	17	19	7

- A) 17 B) 16 C) 15 D) 19

7. The given table shows the number of toys of a toy-shop sold in a month.

Type of Toy	Number of toys sold
	34
	29
	46
	25
	18

If the total number of toys at the beginning of the month is 200, how many toys remain unsold at the end of the month?

- A) 152 B) 248 C) 52 D) 48
8. Four girls decorated their *Bathukamma* using different types of flowers. The table below shows the types of flowers and the number of flowers they used:

Name of the girl	Chrysanthemum	Marigold	Hibiscus	Rose
Sarala	28	21	16	36
Maahi	36	32	14	34
Bhavya	27	34	12	32
Thanu Sri	32	28	18	27

Read the following statements and choose the correct statement:

1. Thanu Sri used more flowers than others.
2. Bhavya and Thanu Sri used the same number of flowers.

3. Sarala used the highest number of flowers.

4. Maahi used the least number of flowers.

A) 4

B) 2

C) 1

D) 3

9. Two teams were playing Cricket in a ground. The table below shows the number of runs scored by a team.

Name of the player	Runs scored
Sunil	23
Kiran	11
Mahesh	26
Irfan	28
Arun	8

How many minimum runs should be scored by the other team to win the match?

A) 96

B) 95

C) 97

D) 94

10. Four friends Manoj, Sanju, Abhi and Vikranth were counting the number of vehicles passing through their street. Who observed more number of vehicles?

Name of the child	2-wheelers	4-wheelers
Manoj	18	12
Sanju	16	15
Abhi	15	14
Vikranth	12	16

A) Vikranth

B) Abhi

C) Manoj

D) Sanju

Key

1. B 2. A 3. B 4. A 5. B 6. C 7. D 8. B 9. C 10. D

Explanation:

1. Number of families that have 2 children is 70.
2. Money saved by Sheeba = $11 \times \text{Rs. } 5 = \text{Rs. } 55$
3. Points scored by Player 3 = $2 \times 20 + 4 \times 10 = 80$ points
4. Number of houses = $(2 \times 5) + (3 \times 4) + (5 \times 6) = 57$
5. Cat eats less than Squirrel. Cat eats 300gm whereas Squirrel eats 50gm.
6. Highest=22 Lowest=7 Difference: $22 - 7 = 15$
7. Total toys sold = $34 + 29 + 46 + 25 + 18 = 152$ Toys unsold = $200 - 152 = 48$
8. Bhavya and Thanu Sri used the same number of flowers.
9. Total runs scored by the team = $23 + 11 + 26 + 28 + 8 = 96$ So, the other team should score at least 1 run more that is 97 runs to win the match.
10. Number of vehicles observed by Sanju = $16 + 15 = 31$

LO : M-501

Reads and writes numbers bigger than 1000 being used in his/her surroundings.

- The number obtained by subtracting 1 from the largest four-digit number
A) 1000 B) 9999 C) 9998 D) 10,000
- The number that represents $4+500+2000$ in short form
A) 4532 B) 5432 C) 2504 D) 2345
- Four thousand and eighty in Number form
A) 4800 B) 4080 C) 4008 D) 4808
- An organization plants saplings in different villages every year. The details of them are given in the table below.

Year	Plants
2020	2056
2021	2560
2022	2506
2023	2065

- In which year the highest number of saplings were planted?
- A) 2022 B) 2020 C) 2023 D) 2021
- The difference between the place values of 7 and 3 in the number 7834.
A) 6000 B) 6970 C) 630 D) 6700
 - 5332 , 5232 , 5322 , 5233 Identify the smallest number among:
A) 5232 B) 5332 C) 5322 D) 5233
 - The number which is smaller than 3000 and bigger than 2900 is
A) Two thousand nine hundred B) Three thousand

- C) Two thousand nine hundred and fifty
- D) Two thousand eight hundred and ninety nine
8. The largest number that can be formed by 5, 0, 9, 7 digits is:
 A) 9057 B) 5097 C) 5907 D) 9750
9. Identify the given numbers in descending order
 6876, 6578, 6078, 6087
 A) 6578,6078, 6876, 6087 B) 6876,6578,6087,6078
 C) 6078,6087 , 6578, 6876 D) 6087,6876,6578,6078
10. Among the following, the 3 items Ramu can buy with ₹ 4000 is
 i) Fan – ₹ 770
 ii) Bed – ₹ 2750
 iii) Almirah – ₹ 2980
 iv) Chair – ₹ 350
 A) i, iii, iv B) ii, iii, iv C) i,ii , iv D) i, ii, iii
11. The monthly income of a family is ₹ 25,650. What is their annual income?
 A) Three lakhs seven thousand and six hundred.
 B) ₹ 3,07,800
 C) Three hundred seven thousand six hundred
 D) All the above
12. The difference between the place value and face value of '7' in the number 2,75,043 is _____
 A) 70,000 B) 7 C) 69,993 D) 70,007

Key

1. C 2. C 3. B 4. D 5. B 6. A 7. C 8. D 9. B 10. C
 11. D 12. C

Explanation:

1. Largest four-digit number = 9999

$$9999 - 1 = 9998$$

2. $2000 + 500 + 4 = 2 \text{ thousands} + 5 \text{ hundreds} + 4 \text{ ones} = 2504$

3. Sol: four thousand and eighty =

$$4 \text{ Thousands} + 0 \text{ hundreds} + 8 \text{ tens} + 0 \text{ ones}$$

$$4000 + 000 + 80 + 0 = 4080$$

4. The highest number of saplings planted is 2560 in the year 2021.

5. In the given number is 7834

$$\text{The difference between the place value of 7 and 3 in the number 7834} = 7000 - 30 = 6970.$$

6. (Compare the numbers in thousands place; if the numbers are same, then compare the numbers in hundreds place)

$$\text{the smallest number in } 5332, 5232, 5322, 5233 \text{ is } 5232$$

7. C) Two thousand nine hundred and fifty

8. D) 9750

9. First compare the digits in the thousands place and if they are equal, then compare the digits in the hundreds place and arrange the given numbers from the largest to the smallest numbers.

$$\text{Descending order: } 6876, 6578, 6087, 6078$$

10. $\text{₹ } 770 + \text{₹ } 2750 + \text{₹ } 350 = \text{₹ } 3870$

So he can buy Fan, Bed and chair.

11. Monthly income = ₹ 25,650

$$\text{Annual income} = 12 \times \text{₹ } 25,650$$

$$= \text{₹ } 3,07,800$$

12. Given number is 2,75,043

$$\text{Place value of 7} = 70,000$$

$$\text{Face value of 7} = 7$$

$$\text{Difference} = 70000 - 7 = 69,993$$

LO : M504

Estimates sum, difference, product and quotient of numbers and verifies the same using different strategies like using standard algorithms or breaking number and then using operation.

- The length of the Nile River is 6650 Km and the length of the Ganga River is 2523 Km. How many Kilometers more is the Nile River when compared with the Ganga River?
A) 9173 Km B) 4133 Km C) 4127 Km D) 4137 Km
- Lasya wrote the greatest 4-digit and smallest 4-digit numbers using the digits 1, 7, 2, 9. The difference between the two numbers is _____.
A) 8542 B) 8442 C) 11000 D) 7992
- Mahesh spends ₹ 4000 for food, ₹ 8500 for house rent, ₹ 2400 for education, ₹ 3800 for other expenses and saves the remaining amount in a month. If his salary is ₹ 24500, then how much amount does he save?
A) ₹ 6200 B) ₹ 5800 C) ₹ 18700 D) ₹ 14900
- Vegetable price list:

Vegetable	Price per kg
Tomato	₹ 25
Onion	₹ 30
Chilly	₹ 160
Brinjal	₹ 50
Carrot	₹ 120
Potato	₹ 35

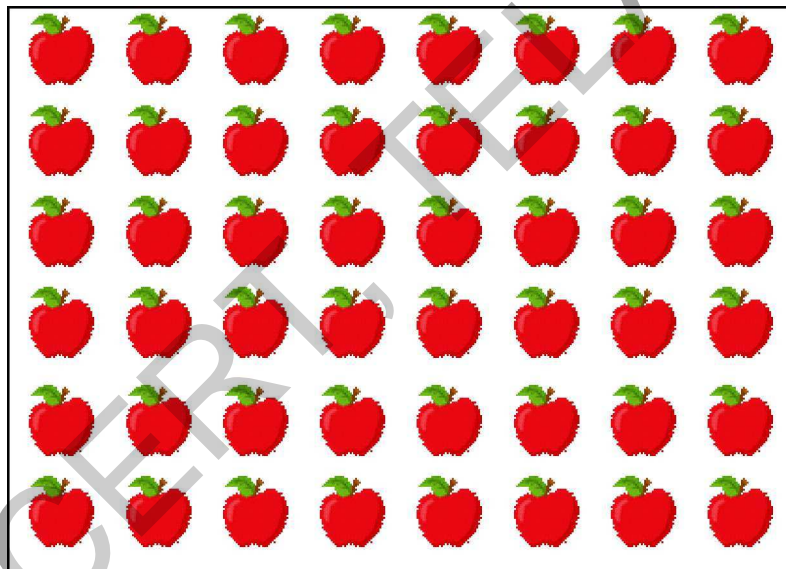
- Parveen went to a vegetable shop and bought 2 Kg of Brinjal, 1 Kg of Potato, 3 Kg of Onion and 2 Kg of Tomato and gave ₹ 500 to the shop keeper. How much money does the shop keeper return?
- A) ₹ 225 B) ₹ 235 C) ₹ 275 D) ₹ 375
- Students of a school went to the picnic by bus. ₹ 2660 is spent to fill diesel in the bus. If cost of 1 liter diesel is ₹ 95, then how many liters of diesel is filled in that bus?
A) 30 liters B) 27 liters C) 28 liters D) 35 liters

6. Here is the list of batting records of Cricket played by 2 team players.

Name of the Cricketer	Runs scored
Sridhar	5426
Vijay	4234
Rafiq	3848
Shiva	3704
Surya	3430

Now based on the above data, identify the incorrect statement from the given statements.

- A) The total runs scored by both Sridhar and Vijay is 9660
 - B) Vijay has scored more runs than Surya
 - C) The total runs scored by both Shiva and Surya is < 7000
 - D) Rafiq has scored 144 more runs than Shiva
7. Observe the given picture and statements given below.



- 1) If the apples were distributed to 12 students equally, then each student gets 4 apples
- 2) If the apples were distributed to 8 students equally, then each student gets 7 apples
- 3) If the apples were distributed to 6 students equally, then each student gets 8 apples.
- 4) If the apples were distributed to 11 students equally, then each student gets 5 apples.

Now Identify the correct option.

- A) Statements 1 and 2 are correct.

- B) Statements 2, 3, 4 are correct.
 C) Statements 2 and 4 are correct.
 D) Statements 1 and 3 are correct.
8. By subtracting the sum of the smallest 4-digit number, the smallest 3-digit number and the largest 3-digit number from 3000, we get _____
- A) 91 B) 910 C) 901 D) 902
9. In a school, the average water consumption for 1 day by 1 to 5 class students are as below:

I, II and III class students	2 L per student
IV and V class students	2 L 500 ml per student

- Find the total water consumed by all the students of all classes if the number of students of classes 1, 2, 3 is 65 and number of students of classes 4 and 5 is 44.
- A) 130 L B) 240 L C) 110 L D) 100 L
10. Identify the sum of $2348 + 3689 + 1598$ in expanded form:
- A) $6000 + 700 + 30 + 5$ B) $70000 + 600 + 50 + 3$
 C) $7000 + 600 + 30 + 5$ D) $5000 + 700 + 60 + 5$
11. Estimate the sum of 23614 and 16891 to the nearest 1000s
- A) 42000 B) 41000 C) 40000 D) 39000
12. The expanded form of the product of 27 and 3061 is:
- A) $3000 + 80 + 8$ B) $3000 + 30 + 4$
 C) $80000 + 6000 + 200 + 40 + 7$ D) $80000 + 2000 + 600 + 40 + 7$

Key

1. C 2.B 3. B 4.A 5. C 6. C 7. D 8. C 9. B 10. C 11.B 12.D

Explanation:

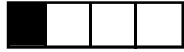
- The length of the Nile River = 6650 Km
The length of the Ganga River = 2523 Km
The difference of the lengths = $6650 \text{ Km} - 2523 \text{ Km} = 4127 \text{ Km}$
- Given 4 digits are: 1, 7, 2, 9
Greatest number that can be formed = 9721
Smallest number that can be formed = 1279
Difference = $9721 - 1279 = 8442$.
- The total amount spent by Mahesh = ₹ 4000 + ₹ 8500 + ₹ 2400 + ₹ 3800 = ₹ 18700
The salary of Mahesh = ₹ 24500
The amount saved = ₹ 24500 - ₹ 18700 = ₹ 5800
- Cost of 2Kg Brinjal = $2 \times ₹ 50 = ₹ 100$
Cost of 1Kg Potato = ₹ 35
Cost of 3Kg Onion = $3 \times ₹ 30 = ₹ 90$
Cost of 2Kg Tomato = $2 \times ₹ 25 = ₹ 50$
Total cost = ₹ 100 + ₹ 35 + ₹ 90 + ₹ 50 = ₹ 275
Amount given to the shop keeper = ₹ 500
Amount that the shopkeeper returns = ₹ 500 - ₹ 275 = ₹ 225
- Amount spent for diesel = ₹ 2660
Price of the diesel per liter = ₹ 95
Number of liters bought = $2660 \div 95 = 28$ liters
- The total runs scored by both Shiva and Surya is < 7000
Runs scored by Shiva and Surya = $3704 + 3430 = 7134 > 7000$

7. 1) Distributing 48 apples to 12 students = $48 \div 12 = 4$ apples to each student
2) Distributing 48 apples to 8 students = $48 \div 8 = 6$ apples to each student
3) Distributing 48 apples to 6 students = $48 \div 6 = 8$ apples to each student
4) Distributing 48 apples to 11 students = $48 \div 11 = 4$ apples to each student + 4 apples remain. Therefore, statements 1 and 3 only are correct.
8. The Smallest 4-digit number is = 1000
the smallest 3-digit number is = 100
the largest 3-digit number is = 999
the sum of all these = $1000 + 100 + 999 = 2099$
subtracting from 3000, we get $3000 - 2099 = 901$
9. Total strength of I, II and III class students = 65
Average water consumption for 1 day = 2 L = $65 \times 2 = 130$ L
Total strength of 4 and 5 class students = 44
Average water consumption for 1 day = 2 L 500 ml = $44 \times 1 \text{ L } 500 \text{ ml} = 110$ L
Total water consumed = $130 + 110 = 240$ L
10. The sum of $2348 + 3689 + 1598 = 7635$
The expanded form of $7635 = 7000 + 600 + 30 + 5$
11. 23614 to the nearest thousand is 24000
16891 to the nearest thousand is 17000
Their sum = $24000 + 17000 = 41000$
12. $27 \times 3061 = 82647$
Expanded form of $82647 = 80000 + 2000 + 600 + 40 + 7$

LO :M 505

Finds the number corresponding to part of a collection

1. What is the fraction of the shaded part?

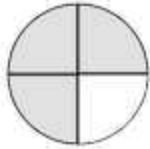


- A) $\frac{4}{4}$ B) $\frac{3}{4}$ C) $\frac{1}{4}$ D) $\frac{2}{4}$

2. There are 28 pens in a box. If 13 of them are red pens, what is the fraction of red pens?

- A) $\frac{13}{28}$ B) $\frac{15}{28}$ C) $\frac{28}{28}$ D) $\frac{13}{13}$

3. Fraction of the non-shaded part is:



- A) $\frac{3}{4}$ B) $\frac{4}{3}$ C) $\frac{2}{4}$ D) $\frac{1}{4}$

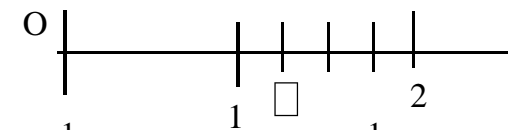
4. $\frac{7}{5}$ can be expressed as:

- A) $2\frac{3}{5}$ B) $1\frac{2}{5}$ C) $7\frac{3}{5}$ D) $7\frac{7}{5}$

5. There are 30 trees in a garden, which has 12 mango trees and the rest are guava trees. Fraction of guava trees is:

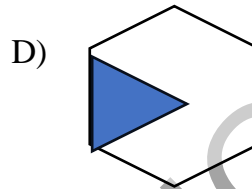
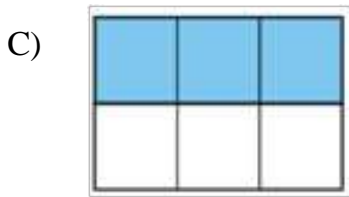
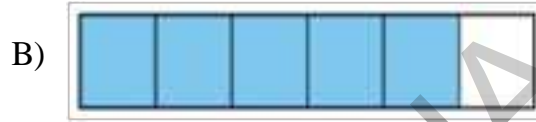
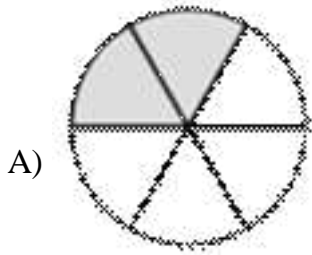
- A) $\frac{18}{30}$ B) $\frac{12}{30}$ C) $\frac{10}{30}$ D) $\frac{30}{42}$

6. Fraction to be written in the box on the number line



- A) $\frac{1}{2}$ B) $7\frac{1}{2}$ C) $7\frac{3}{4}$ D) $1\frac{1}{4}$

7. The Fraction equivalent to $\frac{1}{6}$



8. John bought 12 apples from the market. He and his family ate $\frac{5}{12}$ part of the apples and $\frac{3}{12}$ part of apples got spoiled. How many apples are left? Write as fractional number.

- A) $\frac{3}{12}$ B) $\frac{7}{12}$ C) $\frac{2}{3}$ D) $\frac{1}{3}$

9. A story book contains 60 pages in it. If Radha read $\frac{1}{6}$ part of her book in the morning and $\frac{3}{6}$ part in the evening, how many pages Radha **did not** read?

- A) 40 pages B) 10 pages C) 30 pages D) 20 pages

10. One day has 24 hours. If Ravi sleeps for $\frac{1}{3}$ part of day, studies and works for $\frac{1}{2}$ part of day, watches TV for $\frac{1}{12}$ part of the day and rest of the time for play in a day, then how many hours does he spend for playing?

- A) 8 hours B) 12 hours C) 2 hours D) 20 hours

Key

1. C 2.A 3. D 4.B 5.A 6. D 7. D 8. D 9. D 10. C

Explanation:

1. Among the 4 equal parts, one is shaded

Therefore, $\frac{1}{4}$

2. Total pens = 28

Red pens = 13

Fraction of red pens = $\frac{13}{28}$

3. Total equal parts = 4

Non shaded part = 1

Fraction of nonshaded part = $\frac{1}{4}$

4. If 7 items are divided equally among 5 people, after giving 1 whole item, the remaining

2 items should be divided among the 5 people. $1 + \frac{2}{5} = 1\frac{2}{5}$.

5. Total trees = 30

Mango trees = 12

Guava trees = 30 - 12 = 18

Fraction of guava trees = $\frac{18}{30}$

6. After 1, the number line is divided into 4 equal parts and one part is taken. $1 + \frac{1}{4} = 1\frac{1}{4}$

7. The figure D is divided into 6 equal parts, and one part is shaded.

8. Apples eaten by him and his family = $12 \times \frac{5}{12} = 5$

$$\text{Number of apples spoiled} = 12 \times \frac{3}{12} = 3$$

$$\text{Left over apples} = 12 - 8 = 4$$

$$\text{Left over apples in whole} = \frac{4}{12} = \frac{1}{3}$$

9. Total number of pages = 60

$$\text{No. of pages read by Radha in the morning} = 60 \times \frac{1}{6} = 10$$

$$\text{No. of pages read by Radha in the evening} = 60 \times \frac{3}{6} = 30$$

$$\text{No. of pages not been read by Radha} = 60 - 40 = 20$$

10. Number of hours in a day = 24

$$\text{Number of hours for sleep} = \frac{1}{3} \times 24 = 8$$

$$\text{Number of hours for studies and work} = \frac{1}{2} \times 24 = 12$$

$$\text{Number of hours for watching TV} = \frac{1}{12} \times 24 = 2$$

$$\text{Number of hours for playing} = 24 - 22 = 2 \text{ hrs.}$$

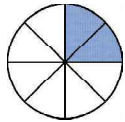


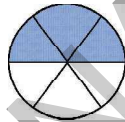
LO : M506

Identifies and forms equivalent fractions of a given fraction.

1. Identify the equivalent fraction for $\frac{1}{3}$.

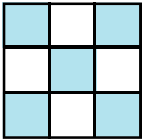
- A) $\frac{1}{4}$ B) $\frac{2}{4}$ C) $\frac{2}{6}$. D) $\frac{3}{8}$

2. Identify the figure which represents equivalent fraction for one-fourth

- A)  B)  C)  D) 

3. $\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \text{---}$

- A) $\frac{5}{8}$ B) $\frac{8}{10}$ C) $\frac{5}{10}$ D) $\frac{8}{8}$

4.  Fraction of the shaded part in the adjacent figure is:

- A) $\frac{5}{10}$ B) $\frac{6}{10}$ C) $\frac{5}{18}$ D) $\frac{10}{18}$

5. Identify the fraction that is not Equivalent for $\frac{2}{3}$.

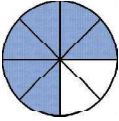
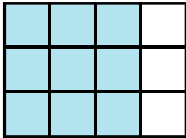
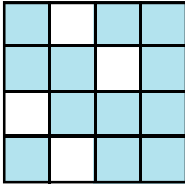
- A) $\frac{22}{33}$ B) $\frac{20}{30}$ C) $\frac{16}{21}$ D) $\frac{18}{27}$

6. Which of the following is a pair of Equivalent fractions?

- A) $\frac{5}{4}$ and $\frac{10}{12}$ B) $\frac{5}{4}$ and $\frac{10}{8}$ C) $\frac{6}{7}$ and $\frac{48}{49}$ D) $\frac{2}{3}$ and $\frac{19}{27}$

7. 

Identify the figure which is an equivalent fraction for the given figure.

- (i)  (ii)  (iii) 
- A) (i) only B) (ii) only C) (i) and (ii) D) (i), (ii) and (iii)

8. If $\frac{3}{4} = \frac{A}{8} = \frac{9}{B}$, then $\frac{A}{B} = \underline{\hspace{2cm}}$

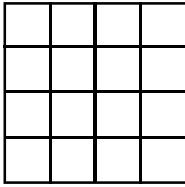
A) $\frac{6}{12}$

B) $\frac{9}{12}$

C) $\frac{12}{16}$

D) $\frac{6}{8}$

9.



How many squares are to be shaded in the figure to represent $\frac{1}{4}$.

A) 3

B) 8

C) 4

D) 12

10. Latha went to a shop to get two liters of milk. The shopkeeper gave her all $\frac{1}{4}$ L packets. How many packets of milk did Latha bring?

A) 2

B) 4

C) 6

D) 8

Key

1. C 2. A 3. C 4. D 5. C 6. B 7. D 8. A 9. C 10. D

Explanation:

1. A fraction whose numerator and denominator are multiplied and divided by the same

number does not change in value. $\frac{1}{3} \times \frac{2}{2} = \frac{2}{6}$

2. $\frac{1}{4}$ of the total parts is shaded in Figure A.

3. When the numerator and denominator are multiplied by the same number

$\frac{1}{2} \times \frac{2}{2} = \frac{1}{2} \times \frac{3}{3} = \frac{1}{2} \times \frac{4}{4}$ now $\frac{1}{2} \times \frac{5}{5} = \frac{5}{10}$

4. The shaded part of the given figure is $\frac{5}{9}$ when the numerator and denominator of this

fraction are multiplied by the same number $\frac{5}{9} \times \frac{2}{2} = \frac{10}{18}$

5. When the numerator and denominator of the fraction $\frac{2}{3}$ are multiplied by the same number, identify the fraction given in answer which is not appropriate

6. $\frac{5}{4} \times \frac{2}{2} = \frac{10}{8}$

7. The shaded part of the given figure is $\frac{3}{4}$ so, (i) and (iii) represents equivalent fractions.

8. $\frac{3}{4} \times \frac{2}{2} = \frac{6}{8} = \frac{A}{8}$, So A = 6

$$\frac{3}{4} \times \frac{3}{3} = \frac{9}{12} = \frac{9}{B}, \text{ So } B=12$$

Then $\frac{A}{B} = \frac{6}{12}$

9. Total number of squares = 16.

$$16 \times \frac{1}{4} = 4. \text{ So, 4 squares are to be shaded to represent } \frac{1}{4}.$$

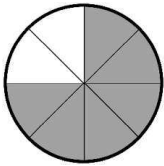
10. The number of $\frac{1}{4}$ L packets in one liter = 4.

So, in two litres, there are 8 packets of $\frac{1}{4}$ L.

LO : M508

Converts fractions into decimals and vice-versa

1. Decimal form of $\frac{5}{10}$ is
A) 0.05 B) 0.5 C) 0.52 D) 2.5
2. $0.25 \times \underline{\hspace{2cm}} = 0.025$
A) 10 B) 100 C) 1/10 D) 1/100
3. Write 0.2 in a fraction form ...
A) $\frac{1}{10}$ B) $\frac{2}{10}$ C) $\frac{3}{10}$ D) $\frac{2}{5}$
4. Ramya ate 0.25 part of a cake. She gave the rest of the cake to her friends. How much part of the cake did Ramya give to her friends.
A) 1/2 B) 3/4 C) 2/4 D) 1/4
5. Shaded part of the following picture



- A) 0.5 B) 0.075 C) 0.75 D) 0.25
6. Decimal form of $\frac{6}{100}$
A) 0.6 B) 6.0 C) 600 D) 0.06
 7. Which is bigger between 0.4 and 0.04? Show it in a fraction form
A) $\frac{2}{3}$ B) $\frac{2}{5}$ C) $\frac{2}{4}$ D) $\frac{4}{100}$
 8. Suma read 50 pages out of 100 pages in a book. Show the decimal form that Suma read?
A) 0.25 B) 0.5 C) 0.75 D) 0.05
 9. Fraction form of $0.25 + 0.25 + 0.25$ is
A) $\frac{1}{2}$ B) $\frac{1}{4}$ C) $\frac{3}{4}$ D) $\frac{1}{1}$
 10. Ravi coloured $\frac{1}{4}$ part in green and another $\frac{1}{4}$ part in red in a picture. Show the part coloured by Ravi in decimal form?
A) 0.3 B) 0.4 C) 0.2 D) 0.5

Key

1. B 2.C 3. B 4.B 5.C 6. D 7. B 8. B 9. C 10. D

Explanation:

1. 5 is divided into 10 equal parts

$$5 \text{ parts of } \frac{1}{10} = 0.5$$

2. $0.25 \times \frac{1}{10} = 0.025$

3. $0.2 = 0.2 \times \frac{10}{10} = \frac{2}{10}$

4. $1.00 - 0.25 = 0.75 = \frac{75}{100} = \frac{3}{4}$

5. Shaded part = $\frac{6}{8} = \frac{3}{4}$

$$\frac{3}{4} \times \frac{25}{25} \text{ [making the denominator into 100 parts]}$$
$$75/100 = 0.75$$

6. Decimal form of $\frac{6}{100} = 0.06$

7. $0.4 = \frac{4}{10} = \frac{2}{5}$ $0.04 = \frac{4}{100} = \frac{2}{50}$

The denominator part of $\frac{2}{50}$ is more than $\frac{2}{5}$

The fraction with the lowest denominator part is bigger than the fraction having highest denominator part. So, $\frac{2}{5} > \frac{2}{50}$

8. Number of pages that Suma read = 50

Total number of pages = 100.

$$\text{Part read by Suma} = \frac{50}{100} = \frac{5}{10} = 0.5$$

9. $0.25 + 0.25 + 0.25 = 0.75 = \frac{75}{100} = \frac{3}{4}$

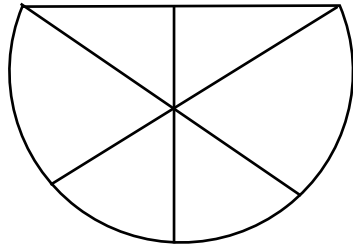
10. Part coloured in red = $\frac{1}{4}$, Part coloured in green = $\frac{1}{4}$

$$\text{Total part coloured} = \frac{1}{4} + \frac{1}{4} = \frac{2}{4} = \frac{1}{2} = 0.5$$

LO : M509

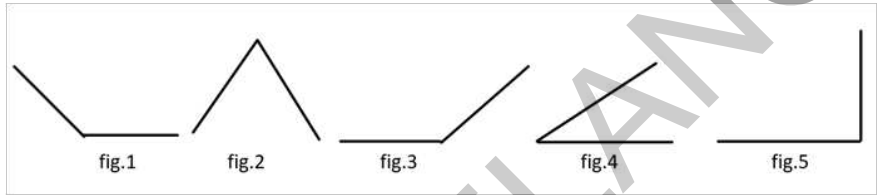
Classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing.

1. Identify and count the number of right angles formed in the below picture.



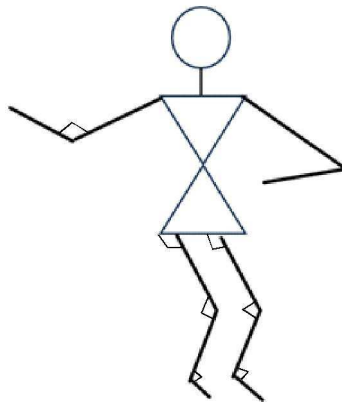
- A)12 B)4 C) 2 D) 6

2. Identify the figures which have less than right angles (AcuteAngles) from the below given figures.



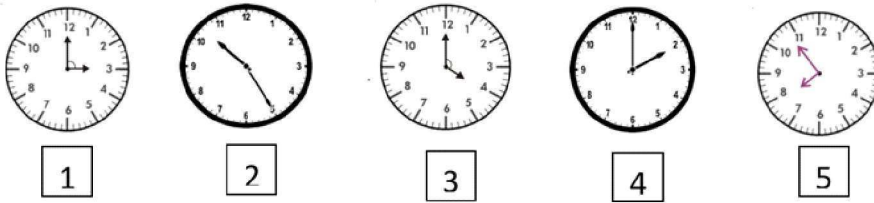
- A) fig.1, fig.2 and fig.5 only B) fig.2 and fig.5 only
C) fig.2, fig.3 and fig.4 only D) fig.2 and fig.4 only

3. Identify and count the number of angles that are more than right angle (Obtuse Angles) formed in the below picture.



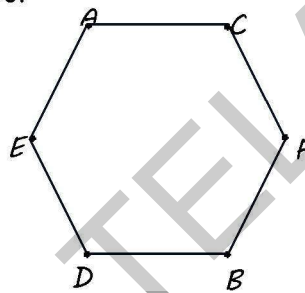
- A)4 B) 6 C)9 D) 10

4. Observe the angles formed by the two hands in the given clocks



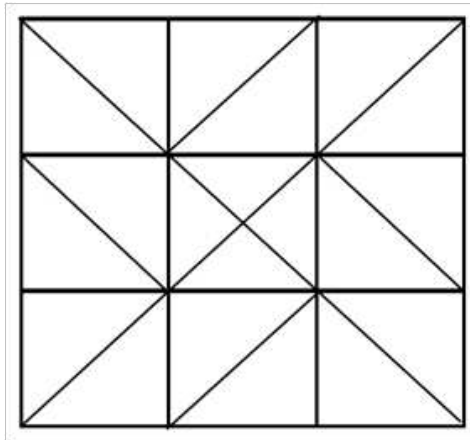
Now identify the correct statement from the given statements.

- A) clocks 1 and 4 both have less than right angles (Acute Angles) between their hands.
 - B) clocks 2 and 3 both have more than right angles (Obtuse Angles) between their hands.
 - C) clocks 1, 3 and 5 have right angles between their hands.
 - D) There is no clock with less than right angle (Acute Angle) between its hands.
5. Observe the given picture.



Join the dots A and B, C and D, E and F, then count the number of less than right angles (Acute Angles) formed in it.

- A) 18 B) 12 C) 6 D) 10
6. Observe the picture and identify the number of right angles formed in it.



- A) 16 B) 12 C) 20 D) 32

7. Sameera, Navya and Meghna wrote some angles in their books as given below.

Sameera	Navya	Meghana
120°, 80°, 35°	75°, 123°, 180°	100°, 170°, 125°
180°, 91°, 65°	125°, 30°, 88°	99°, 162°, 150°
89°, 150°, 125°, 20°	145°, 25°, 90°, 170°	111°, 91°, 105°, 179°

Now identify the correct statement from the given statements.

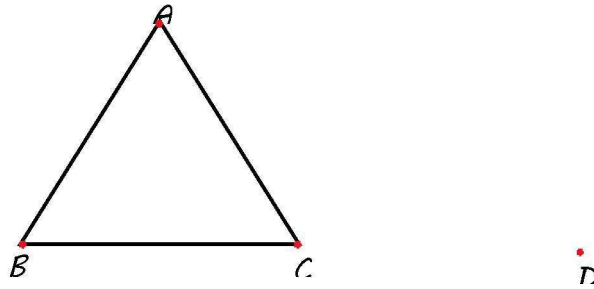
- A) Navya and Meghana wrote both Acute and Obtuse angles.
 B) Sameera and Meghana wrote only Obtuse angles.
 C) Sameera and Navya wrote all Acute, Obtuse and Right angles.
 D) Right angle is written only by Navya.
8. Observe the given angles.
 75°, 160°, 91°, 128°, 31°, 89°, 145°, 25°, 90°, 10°, 36°, 123°, 180°, 111°, 60°, 99°
 Identify the angles that are less than right angles (Acute Angles).
 A) 10°, 25°, 31°, 36°, 60°, 75°, 89°, 90°, 91°, 99°
 B) 10°, 25°, 31°, 36°, 60°, 75°, 89°
 C) 111°, 123°, 128°, 145°, 160°, 180°
 D) 91°, 99°, 111°, 123°, 128°, 145°, 160°, 180°
9. Observe the wall clock given below.



Imagine the given statements and identify the correct statement.

- At 3:00 hours, the angle between the both the hands is right angle.
 - At 4:00 hours, the angle between the both the hands is less than right angle.
 - At 8:00 hours, the angle between the both the hands is more than right angle.
 - At 10:00 hours, the angle between the both the hands is right angle.
- A) Statements 1 and 2 are correct. B) Statements 3 and 4 are correct.
 C) Statements 1 and 3 are correct. D) Statements 1 and 4 are correct.

10. In the below triangle, if we draw a line from Point C to Point D, then which type of Angle will form at Point "C" ?

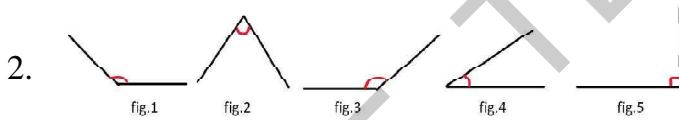


- A) Obtuse Angle B) Right Angle C) Acute Angle D) Straight Angle

Key									
1. C	2. D	3. C	4. B	5. A	6. C	7. D	8. B	9. C	10. A

Explanation:

1. Only two right angles are there in this picture.

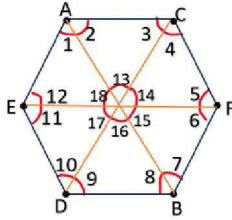


only fig. 2 and fig. 4 have less than right angles (Acute Angles), fig. 1 and fig. 3 have more than right angles (Obtuse Angles) and fig. 5 have right angle.

- 3.
-
- 9 angles are there that are more than right angle (Obtuse Angles).

4. Statement (B) is correct. clocks 2 and 3 both have more than right angles (Obtuse Angles) between their hands.

5.



Total 18 less than right angles (Acute Angles) have formed.

6.

Total 20 right angles have formed.

7.

Sameera	Navya	Meghana
120°, 80°, 35°	75°, 123°, 180°	100°, 170°, 125°
180°, 91°, 65°	125°, 30°, 88°	99°, 162°, 150°
89°, 150°, 125°, 20°	145°, 25°, 90°, 170°	111°, 91°, 105°, 179°
Acute Angles, Obtuse Angles	Acute Angles, Right Angle Obtuse Angles	Obtuse Angles

8.

Acute Angles: 10°, 25°, 31°, 36°, 60°, 75°, 89° Right Angle: 90° Obtuse Angles: 91°, 99°, 111°, 123°, 128°, 145°, 160°, 180° Option (B) has all the given Acute angles.

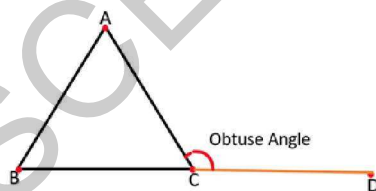
9.



3:00 hours: Right angle, 4:00 hours: More than Right angle. 8:00 hours: More than Right angle. 10:00 hours: Less than Right angle.

Option (C) is correct.

10. Key (A) Obtuse Angle

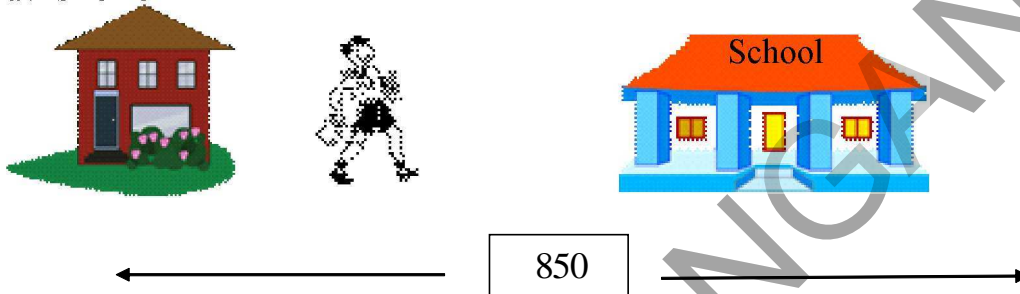


LO : M512

Relates different commonly used larger and smaller units of length, weight and volume and converts larger units to smaller units and vice versa.

1. Ramu wants to buy 2 Kg of cloves in a shop. If the cloves are available only in 100g packets, then how many such packets that Ramu has to buy?
- A) 10 B) 100 C) 20 D) 50

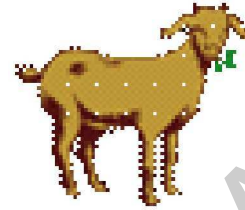
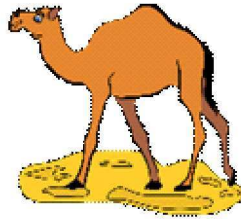
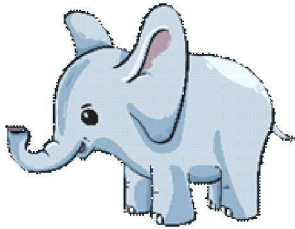
2. Ravi's home



The distance between Ravi's home and his school is 850m. If Ravi goes to school on foot, then how much distance does he walk in a day?

- A) 1Km B) 2Km 400m C) 1Km 700m D) 2 Km
3. Kamala purchased 2Kg of Onion, 1Kg 500g of Tomato, 800g of Chilly, 300g of Ginger, 250g of Garlic and kept all these vegetables in an empty bag. If the bag weighs 20g, then what is the total weight of the bag along with the vegetables?
- A) 400g B) 4000g C) 4850g D) 4870g
4. The students of a school want to decorate their school boundary wall along its length with 3 colour ribbons one after the other. They have purchased 8m 350cm of white colour ribbon and 6m 280cm of orange colour ribbon. If the total length of the boundary wall is 20m 800cm, then how much length of the green colour ribbon is needed?
- A) 12m 450cm B) 14m 630cm C) 6m 170cm D) 6m 230 cm
5. A milk vendor collected 36 liters of milk from Rangapuram village, 28 liters of milk from Ramapuram village and sold 19 liters of milk to a Hostel and 26 liters of milk to a hotel. He packed the leftover milk in 500ml packets and gave to a dairy parlor. How many milk packets did he give to the dairy parlor?
- A) 64 packets B) 45 packets C) 19 packets D) 38 packets

6. Observe the weights of given animals.



Elephant's weight is 4000 kg Camel's weight is 500 kg Goat's weight is 10000 g

Now identify the incorrect statement from the given statements.

- A) The Elephant's weight is 400 times more when compared with Goat's weight.
B) The Camel's weight is 50 times more when compared with Goat's weight.
C) The Goat is 490 Kg less when compared with Camel's weight.
D) The Elephant's weight is 10 times more when compared with Camel's weight.
7. The distance between Sameera's house and her Grandma's village is 376 km. She has travelled 247km by train, 118km by bus and the remaining distance by Auto. How much distance did she travel by Auto?
A) 1100 m B) 11m C) 11000 m D) 110000 m
8. A tailor stitches shirts of same size and he has 50 meters of cloth with him. If 1 shirt requires 1m 25cm of cloth, then how many such shirts can he stitch with that cloth?
A) 50 shirts B) 40 shirts C) 4 shirts D) 400 shirts
9. In a school, 200ml of Ragi Java is served to each student every morning. If 58 students are present in a particular day, then how many liters of Ragi Java has to be prepared for that day?
A) 11 L B) 600 L C) 11600 L D) 11 L 600 ml
10. A vaccine bottle contains 10 doses of vaccine and the prescribed vaccine dosage for a child is 4ml. If a hospital has used 12 bottles in a day, then how much quantity of vaccine did the hospital use on that day?
A) 480 ml B) 40 ml C) 120 ml D) 80 ml

Key

1. C 2. C 3. D 4. C 5. D 6. D 7. C 8. B 9. D 10. A

1. The weight of 1 cloves packet = 100g
We know that 1Kg = 1000g
Then 2Kg = 2000g, $2000g \div 100g = 20$ packets
2. The distance between Ravi's home and the school = 850m
In a day he has to walk twice; to go to school and come from the school.
i.e., $850m + 850m = 1700m = 1 \text{ km } 700m$
3. The total weights of the vegetables is: $2 \text{ Kg} + 1\text{kg } 500\text{g} + 800\text{g} + 300\text{g} + 250 \text{ g} = 4 \text{ Kg } 850\text{g}$. By adding the weight of the bag, we get $4\text{kg } 850\text{g} + 20\text{g} = 4 \text{ Kg } 870 \text{ g} = 4870 \text{ g}$
4. The total length of the school boundary wall = 20m 800cm
Total length of white and orange colour ribbons
 $= 8\text{m } 350\text{cm} + 6\text{m } 280 \text{ cm} = 14\text{m } 630\text{cm}$
The required green colour ribbon = $20\text{m } 800\text{cm} - 14\text{m } 630\text{cm} = 6\text{m } 170\text{cm}$
5. Total milk collected from both the villages = 36 liters + 28 liters = 64 liters
Milk sold to Hostel and the Hotel = 19 liters + 26 liters = 45 liters
Leftover milk with the vendor = 64 liters – 45 liters = 19 liters = 19000 ml
 $19000 \text{ ml} \div 500 \text{ ml} = 38$ packets
6. The Elephant's weight is 10 times more when compared with Camel's weight.
Camel's weight = 500kg
10 times of Camel's weight = $10 \times 500 \text{ kg} = 5000 \text{ kg}$, which is not equal to the weight of the Elephant. Therefore, the statement (D) is incorrect.
7. The distance between Sameera's house and her Grandma's house = 376 km
Distance travelled by both train and Bus = $247 \text{ km} + 118 \text{ km} = 365 \text{ km}$
Distance travelled by Auto = $376 \text{ km} - 365 \text{ km} = 11 \text{ km} = 11,000 \text{ m}$
8. Cloth with the tailor = 50 meters
Required cloth for stitching a shirt = 1m 25cm The number of shirts that can be stitched with the cloth is = $50 \text{ m} \div 1\text{m } 25 \text{ cm}$
 $50 \text{ m} = 5000 \text{ cm}$ $1\text{m } 25 \text{ cm} = 125 \text{ cm}$ $5000 \text{ cm} \div 125 \text{ cm} = 40$ shirts
9. Serving the Quantity of Ragi java served to to each student = 200ml
Number of students present = 58
Total quantity of Ragi Java served to 58 students = $58 \times 200\text{ml} = 11600\text{ml} = 11 \text{ L } 600 \text{ ml}$
10. The number of doses in 1 bottle = 10
Each dose of vaccine = 4ml
Then the vaccine in 1 bottle = $10 \times 4\text{ml} = 40 \text{ ml}$
The vaccine in 12 bottles = $12 \times 40 \text{ ml} = 480 \text{ ml} = 480 \text{ ml}$

LO : M513

Estimates the volume of a solid body in known units.

1. Kamal bought 2kg Onions, 1 kg Tomatoes, 500 gm of Brinjal and 50gm of Ginger. What is the total weight of the vegetables bought by him?
- A) 4 kg 100 gm B) 3 kg 100gm C) 3 kg 550 gm D) 4 kg 550 gm

2. The weight of different sized water melons are as follows:

size	weight
small	1 kg
medium	1 kg 500 gm
large	2 kg

Neelam bought 1 small, 3 medium and 1 large-sized water melons in a market. On the way, she went to her aunt's house and gave 1 medium-sized water melon to her aunt and returned home. What is the weight of the watermelons that she brought to the home?

- A) 6 kg B) 4 kg 500 gm C) 5 kg D) 7 kg 500 gm
3. Rani brought some lemons to make lemonade. 1 lemon gives nearly 7 ml of juice when squeezed. She needs 21 ml of lemon juice to make 1 L of lemonade. How many lemons should she squeeze to make 2 L of lemonade?
- A) 5 B) 6 C) 7 D) 4
4. The weight of one Mango is about 400gm, one Guava is about 200gm and one Musk melon is about 1 kg 200gm. A fruit seller was carrying 15 mangoes, 20 guavas and 6 musk melons in a basket. If the weight of the basket was 250gm, what was the total weight that the fruit seller was carrying?
- A) 16 kg 450gm B) 16 kg 250gm C) 17 kg 250gm D) 17 kg 450gm
5. A painter bought 3 yellow colourcans each of 50 ml, 4 green colourcans each of 100 ml, 3 white colourcan seach of 10 L and 3 red colourcans each of 200 ml. How much paint did he buy?
- A) 30 L 250 ml B) 31 L 150 ml C) 30 L 150 ml D) 31 L 250 ml

6. A trolley auto can carry a total load of about 4600 kg. The weight of one bicycle is about 23 kg. How many bicycles can be loaded in the trolley auto?
 A) 20 B) 2000 C) 200 D) 1058
7. Ichoda village milk co-operative society collects 336L of milk in a day. 90L of milk is packed into 1 L packets, 120L of milk is packed into 500ml packets and 110L of milk is packed into 250ml packets. How many packets of 500ml can be made?
 A) 180 B) 440 C) 90 D) 240
8. A bridge can hold a total weight of 950 tons. There are 28 trucks on the bridge and each truck with its cement bags load weighs 30 tons. How much more weight can that bridge hold?
 A) 840 tons B) 110 tons C) 850 tons D) 84 tons
9. A tea vendor brought 2L of milk. He uses 40ml of milk to prepare each cup of tea or coffee. If he makes 25 cups of tea and 20 cups of coffee, how much milk is left unused?
 A) 200 ml B) 1800 ml C) 1000 ml D) 800 ml
10. A car weighs 2500 kg. If there are 9 such cars in a container, what is the total weight of the cars in the container?
 A) 20,500 kg B) 25,000 kg C) 22,500 kg D) 23,500 kg

Key									
1. C	2. A	3. B	4. D	5. B	6. C	7. D	8. B	9. A	10. C

Explanation:

1. Total weight of the vegetables = 2 kg + 1 kg + 500 gm + 50 gm = 3 kg 550 gm
2. Weight of the watermelons that she brought home = 1kg + 2 x 1kg 500 gm + 2 kg = 6 kg
3. 1 lemon gives 7 ml, 3 lemons give 21 ml
 To make 1 L lemonade, we need 3 lemons; to make 2 L lemonade, we need 6 lemons.
4. Mangoes weight = 15 x 400gm = 6000gm = 6 kg
 Guavas weight = 20 x 200gm = 4000gm = 4 kg

Musk melon weight = $6 \times 1\text{kg } 200\text{gm} = 7\text{ kg } 200\text{gm}$

Weight of the basket = 250gm

Total weight carried by the fruit seller = $6\text{kg}+4\text{kg}+7\text{kg}200\text{gm}+250\text{gm}=17\text{kg } 450\text{gm}$

5. Yellow colour: $3 \times 50\text{ ml} = 150\text{ ml}$

Green colour: $4 \times 100\text{ml} = 400\text{ ml}$

White colour: $3 \times 10\text{ L}=30\text{L}$

Red colour: $3 \times 200\text{ml} = 600\text{ ml}$

Total paint bought = $150\text{ ml} + 400\text{ ml} + 30\text{ L} + 600\text{ ml} = 31\text{L } 150\text{ ml}$

6. Weight that the auto trolley can carry = 4600 kg

Weight of 1 bicycle = 23 kg

Number of bicycles that can be loaded in the auto trolley = $4600/23 = 200$ bicycles

7. $1\text{L} = 500\text{ml} + 500\text{ml} = 2 \times 500\text{ml}$

For 1 L, we can make 2 packets of 500ml each.

For 120L, we can make $2 \times 120 = 240$ packets of 500ml each

8. Total weight that the bridge can hold = 950 tons

Weight of 1 truck = 30 tons

Total weight of 28 trucks = $28 \times 30 = 840$ tons.

More weight that the bridge can hold = $950 - 840 = 110$ tons.

9. Milk brought by the vendor = $2\text{L}=2000\text{ml}$

Milk used in 1 cup = 40 ml

Milk used to make tea and coffee = $(25 \times 40) + (20 \times 40) = 1000 + 800 = 1800\text{ml}$

Milk unused = $2000 - 1800 = 200\text{ ml}$

10. Weight of 1 car = 2500 kg; Weight of 9 cars = $2500 \times 9 = 22,500\text{ kg}$

LO : M514

Applies the four fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals.

1. The distance from Amar's house to school is 850m. The distance from Karan's house to school is 980m. What is the distance between Amar and Karan's house if the school lies in between these two houses?



Amar's house



school

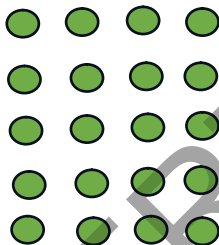


Karan's house

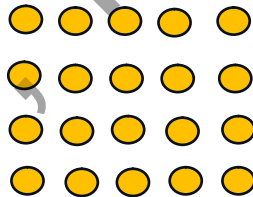
850m

980m

- A) 1km 850m B) 1km 890m C) 1 km 870m D) 1km 830m
2. A mason was using bricks that are each 20 cm long to place along the foot of a wall that is 120 meters long. How many bricks does the mason need?
- A) 600 B) 60 C) 6 D) 2400
3. Veena and Raji were playing with marbles by arranging them as below.



Veena



Raji

Which of the following statements are correct?

- A) Veena used more marbles than Raji. B) Raji used more marbles than Veena.
C) Both of them used the same number of marbles. D) Veena used less marbles than Raji.
4. Lasya has 2 one-hundred rupee notes, 3 fifty rupee notes, and 9 one-rupee coins. Sowmya has 3 one-hundred rupee notes, 1 fifty rupee note, and 6 one-rupee coins. Who has more money and how much more?
- A) Sowmya, Rs.100 more B) Lasya, Rs.3 more
C) Sowmya, Rs.93 more D) Lasya, Rs. 153 more

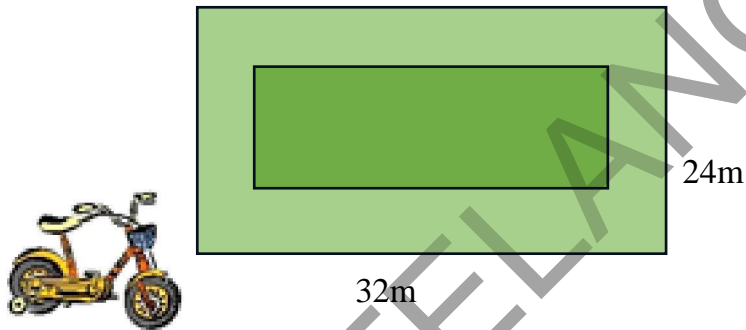
5. A school planned to take the students for a picnic to Golconda. The distance from their school to Golconda Fort is 56 km. if the bus charges Rs25 per km, then how much should the school pay towards the bus charges?

- A) ₹ 81 B) ₹ 680 C) ₹ 2800 D) ₹ 1400

6. Shafi went to his field at 6:30 hrs in the morning. He worked there all day long and came back home at 18:00 hrs in the evening. How much time did he spend in the field?

- A) 11 hours 30 minutes B) 30 minutes
C) 12 hours 30 minutes D) 6 hours 30 minutes

7. Rohit was cycling around a rectangular park. The park is 32 meters long and 24 meters wide. If Rohit rides around the park 5 times, what is the total distance he cycled around the park?



- A) 112 meters B) 560 meters C) 768 meters D) 280 meters

8. A juice vendor sold 16 glasses of mango juice, 12 glasses of orange juice and 8 glasses of pine apple juice in the morning. If each juice glass can hold 250ml of juice, how much juice did the vendor sell on that morning?

- A) 2 L B) 3 L C) 4 L D) 9 L

9. Ratna had 4 fifty-rupee notes, 6 ten-rupee notes, and 8 five-rupee coins. Her mother gave her 1 fifty-rupee note and 2 ten-rupee notes. How much money does Ratna have now?

- A) ₹ 370 B) ₹. 468 C) ₹. 388 D) ₹. 580

10. Divya drinks 150 ml of milk each time. If she drinks the same amount of milk twice in a day, how much milk does she drink in a week?

- A) 1 L 50 ml B) 1 L 800 ml C) 2 L 150 ml D) 2L 100ml

Key

1. D 2. A 3. C 4. B 5. C 6. A 7. B 8. D 9. A 10. D

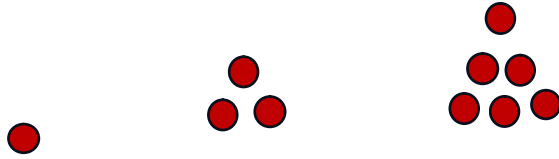
Explanation:

1. Distance between Amar's house and school = 850m
Distance between Karan's house and school = 980m
Distance between Amar and Karan's house = $850 + 980 = 1830\text{m} = 1\text{km } 830\text{m}$
2. Length of the foot of the wall = 120m = 12000cm
Length of 1 brick = 20cm
Number of bricks = $12000/20 = 600$ bricks
3. Number of marbles used by Veena = $4 \times 5 = 20$ marbles
Number of marbles used by Raji = $5 \times 4 = 20$ marbles.
So, both Veena and Raji used same number of marbles.
4. Money with Lasya: $2 \times 100 + 3 \times 50 + 9 \times 1 = 200 + 150 + 9 = 359$
Money with Sowmya: $3 \times 100 + 1 \times 50 + 6 \times 1 = 300 + 50 + 6 = 356$ So,
Lasya has Rs.3 more than Sowmya.
5. Distance from school to Golconda fort = 56 km
Distance from Golconda fort to school = 56 km
Total distance travelled = $56 + 56 = 112$ km
Bus charges for 1 km = ₹. 25 Bus charges for 112 km = $112 \times 25 = ₹. 2800$.
6. Time when he returned from the field = 18:00 hrs = 17:60 hrs (since 1 hr = 60 minutes)
Time when he went to the field = 06:30 am = 06:30 hrs
Total time spent in the field = $17:60 - 06:30 = 11:30$ hrs i.e., 11 hours 30 minutes
7. Perimeter of the rectangular park = $32 + 24 + 32 + 24 = 112$ meters
Rohit cycled around the park 5 times.
Total distance he cycled = $112 \times 5 = 560$ meters
8. Quantity of mango juice sold = $16 \times 250 \text{ ml} = 4000 \text{ ml}$
Quantity of orange juice sold = $12 \times 250 \text{ ml} = 3000 \text{ ml}$
Quantity of pine apple juice sold = $8 \times 250 \text{ ml} = 2000 \text{ ml}$
Total juice sold = $4000 + 3000 + 2000 = 9000 \text{ ml} = 9\text{L}$
9. Money with Ratna = $(4 \times 50) + (6 \times 10) + (8 \times 5) = 200 + 60 + 40 = ₹ 300$
Money that her mother gave = $(1 \times 50) + (2 \times 10) = 50 + 20 = ₹ 70$
Total money that Ratna has now = $₹. 300 + ₹ 70 = ₹. 370$
10. Milk taken by Divya in 1 day = $150 \text{ ml} + 150 \text{ ml} = 300 \text{ ml}$
Milk taken by Divya in 7 days = $300 \times 7 = 2100 \text{ ml} = 2\text{L } 100 \text{ ml}$

LO : M515

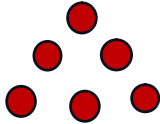
Identifies the pattern in triangular numbers and square number.

1. Madhu was making the pattern using bhindis as given below:

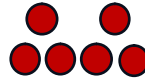


What comes next in the above pattern?

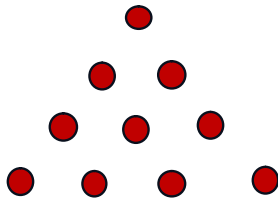
A)



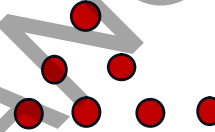
B)



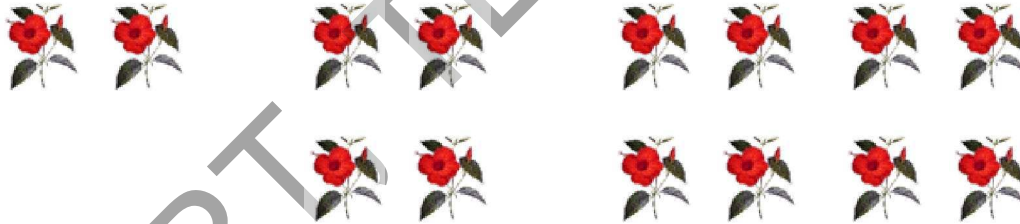
C)



D)



2. Kamala collected some hibiscus flowers and was grouping them as shown in the below pattern:



How many flowers does she keep in the next group?

A) 10 flowers

B) 16 flowers

C) 12 flowers

D) 14 flowers

3. Tarun was playing with leaves which he gathered for his project. He arranged them in groups as shown in the below pattern and asked his brother to extend the pattern.



How many leaves should his brother use to extend the pattern?

A) 12 leaves

B) 16 leaves

C) 10 leaves

D) 8leaves

4. Varsha and Ansh were completing the series given below as follows:

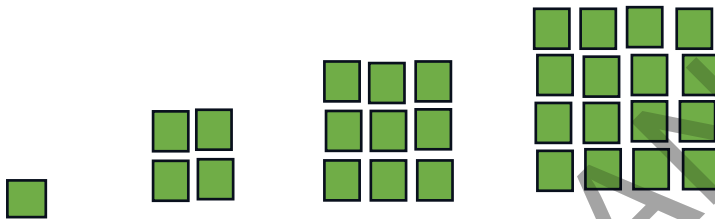
Varsha: 11, 16, 21, 26, 31, 36

Ansh: 11, 16, 21, 26, 30, 34

Who wrote correctly?

- A) Varsha B) Ansh
- C) Both Varsha and Ansh wrote correctly
- D) Both Varsha and Ansh wrote incorrectly.

5. Teja was arranging cubes one over the other in different piles. Look at the cubes arranged by him below:



How many cubes will he use to arrange the next pile?

- A) 20 cubes B) 25 cubes C) 30 cubes D) 36 cubes
6. Kushi and Rahim were playing with twigs and making some patterns as below:



To extend the above pattern, Kushi said that they need 1 twig and Rahim said that they need 2 twigs. Whose answer is correct?

- A) Rahim B) Both are correct C) Kushi D) Both are incorrect
7. Observe the below pattern: Which position does the leaf take in the next turn?



- A)  B)  C)  D) 

8. Observe the below number series: 3,6,9,12,15, ...

Leela says that the rule is to multiply 1, 2, 3, 4, 5, ... by 3

Karuna says that the rule is to adding 3 each time to the previous number to continue.

Choose the correct statement:

1. Leela and Karuna, both are correct.

2. Leela is correct.

3. Karuna is correct.

4. Leela and Karun, both are incorrect.

A) Statement 3 B) Statement 2 C) Statement 1 D) Statement 4

9. Observe the below series:82, 76, 70, 64, ____, ____, ____

Which numbers come in the next 3 blanks?

A) 58, 52, 46 B) 60, 56, 52 C) 52, 46, 30 D) 62, 60, 58

10. Which numbers comes next in the given number series:

1, 4, 9,16, 25, ____, ____, ____

A) 32, 46, 54 B) 36, 49, 64 C) 28, 36, 48 D) 36, 48, 60

Key

1. C 2.B 3. D 4. A 5.B 6.A 7. D 8. C 9.A 10. B

Explanation:

1. The series is as follows:1, $1+2=3$, $3+3=6$, $6+4=10$ (in triangular shape)

2. The series is:2, $2 \times 2 = 4$, $2 \times 4 = 8$, $2 \times 8 = 16$, ...

3. The series is:2, $2 + 2 = 4$, $4 + 2 = 6$, $6 + 2 = 8$, ...

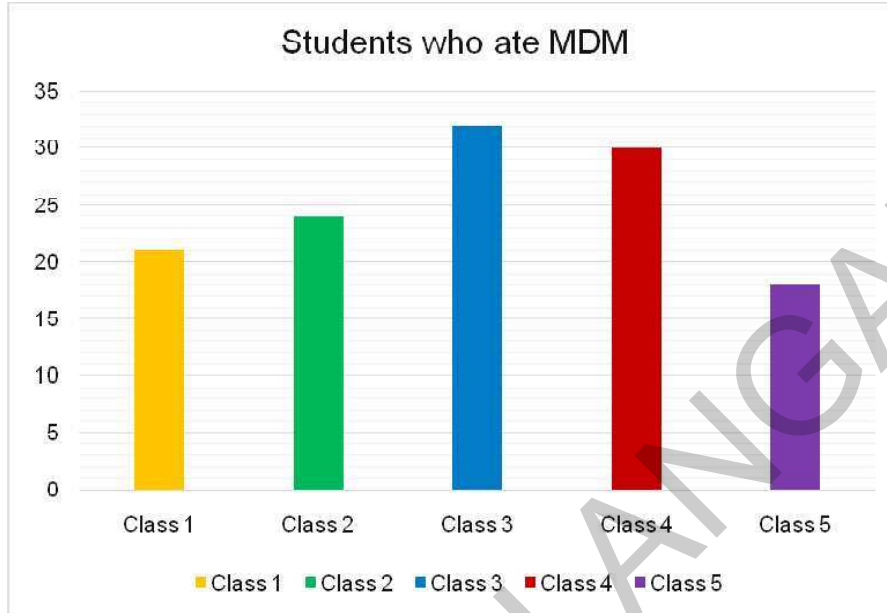
4. The series is:11, $11 + 5 = 16$, $16 + 5 = 21$, $21 + 5 = 26$, $26 + 5 = 31$, $31 + 5 = 36$, ...

5. The series is:
- $$1 \times 1 = 1 \text{ cube}$$
- $$2 \times 2 = 4 \text{ cubes}$$
- $$3 \times 3 = 9 \text{ cubes}$$
- $$4 \times 4 = 16 \text{ cubes}$$
- $$5 \times 5 = 25 \text{ cubes ...}$$
6. The series is: $1, 1+2=3, 3+2=5, 5+2=7, 7+2=9, \dots$. So, they need 2 twigs more to extend the above pattern.
7. The pattern is taking $\frac{1}{4}$ turn each time in clock – wise direction, so it comes to 1st position.
8. As per Leela: $3 \times 1=3, 3 \times 2=6, 3 \times 3=9,$
 $3 \times 4=12, 3 \times 5=15, \dots$
 As per Karuna: $3, 3+3=6, 6+3=9, 9+3=12, 12+3=15, \dots$. So, both Leela and Karuna are correct.
9. The rule is subtracting 6 from the before number.
 So, the next 3 numbers will be: $64 - 6 = 58$
 $58 - 6 = 52$
 $52 - 6 = 46$
10. $1 \times 1, 2 \times 2, 3 \times 3, 4 \times 4, 5 \times 5$ So,
 the answer is: $6 \times 6 = 36, 7 \times 7 = 49, 8 \times 8 = 64$

How much money did the ticket seller get by selling Deluxe bus tickets on that day?

- A) ₹ 8352 B) ₹ 8235 C) ₹ 6156 D) ₹ 6516

3. The number of students who ate Mid-day meals in Annaram Primary School on Monday is given below:



All the students who ate MDM were served egg. If the cost of 1 egg is Rs.5, What is the total cost of eggs provided to the MDM students of that school on that day?

- A) Rs. 625 B) Rs. 425 C) Rs. 575 D) Rs. 750

4. The results of long jump of 5 players during a competition has been recorded as below:

Name of the player	Distance jumped
Kiran	3 m 5 cm
Sandhya	3m 25 cm
Bhavani	3m 10 cm
Nitin	3m 75 cm
Kumar	3m 40 cm

What is the difference between the longest distance and the shortest distance jumped?

- A) 65 cm B) 50 cm C) 70 cm D) 55 cm

If 1 Quintal = 100 kg, which two items when added together are less than 10 Quintals?

- A) Paddy and Red gram B) Red gram and Wheat
 C) Wheat and Green gram D) Green gram and Onion

8. Below is the data related to the top 5 highest IPL 2024 run – scorers (rounded to nearest 10s):



How many more runs does the player with the lowest score need to score to meet the player with the highest score?

- A) 170 runs B) 160 runs C) 200 runs D) 140 runs

9. Sneha needs the following things in her new flat. Below gives the list of things and their costs:

Name of the item	Cost of each item
Fan	₹ 1500
Bed	₹ 4000
Utensils	₹ 3690
Gas stove	₹ 2999

If Sneha has Rs. 10,000 with her, how much money does she need more to buy all the above items

- A) ₹ 2189 B) ₹ 1289 C) ₹ 1892 D) ₹ 2891

10. Given below are the details of Shafi and Ruksana who went to the market to buy some things:

	Money spent on food items	Money spent on clothes and accessories
Shafi	₹ 328	₹ 413
Ruksana	₹ 372	₹ 569

If Shafi and Ruksana each brought Rs. 1000 to the market, who spent more money, and how much money does that person have left?

- A) Shafi, ₹ 741 B) Ruksana, ₹ 941 C) Shafi, ₹ 259 D) Ruksana, ₹ 59

Key

1. D 2. B 3. A 4. C 5. B 6. D 7. C 8. C 9. A 10. D

Explanation:

1. Green gram + yellow gram + Bengal gram = $2 + 3 + 5 = 10$ bags = 10×100 kg = 1000 kg

Green gram + Sugar = $2 + 8 = 10$ bags = 10×100 kg = 1000 kg

So, both Statements are correct.

2. Cost of 1 ticket for Deluxe bus = ₹ 135

Number of passengers who bought Deluxe tickets = 61

Money got by selling Deluxe bus tickets = $135 \times 61 = ₹ 8235$

3. The number of students who ate mid-day meals in Annaram Primary School on Monday

Total students who ate MDM = $21 + 24 + 32 + 30 + 18 = 125$

Cost of 1 egg = ₹ 5

Cost of 125 eggs = $125 \times 5 = ₹ 625$

4. Longest distance – Shortest distance = $3 \text{ m } 75 \text{ cm} - 3 \text{ m } 5 \text{ cm} = 70 \text{ cm}$

5. Drama starts at 10:50 and ends at 11:20

Duration = $11:20 - 10:50 = 30$ minutes.

6. Number of Hercules bicycles at the beginning of the month = 50
Number of bicycles sold = 37
Number of bicycles remained unsold = $50 - 37 = 13$
7. Weights of Wheat and Green gram = $7 \times 50 + 12 \times 50 = 350 + 600 = 950 \text{ kg} < 1000 \text{ kg}$ (10 Quintals)
8. Highest score = 740 runs by Virat Kohli
Lowest score = 540 runs by Sanju Samson
Runs to be scored = Highest score – Lowest score = $740 - 540 = 200$ runs
9. Total cost of the items = $1500 + 4000 + 3690 + 2999 = ₹ 12,189$
Amount Sneha had = ₹ 10,000
More money she needed = $₹ 12,189 - 10,000 = ₹ 2189$
10. Amount spent by Shafi = ₹ 328 + ₹ 413 = ₹ 741
Amount spent by Ruksana = ₹ 372 + ₹ 569 = ₹ 941
So, Ruksana spent more.
Money left with Ruksana = $₹ 1000 - ₹ 941 = ₹ 59$

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