

Class: 7

Subject: Mathematics

Topic: ASK1507SUPER02

No. of Questions: 30

Q1. A mistake was made in simplifying the expression given below.

Simplify: $5 + 2 (6 + 4)^2 - 2^3$

Step 1 : $5 + 2 (10) - 2^3$

Step 2 : $5 + 20 - 8$

Step 3 : $25 - 8,$

Step 4 : 17.

In which step did the first mistake appear?

- (a) Step 1
- (b) Step2
- (c) Step3
- (d) Step4

Sol. (a)

Q2. What percentage of the figure are circles?

- (a) 48%
- (b) 50%
- (c) 52%
- (d) 54%

Sol. (c)

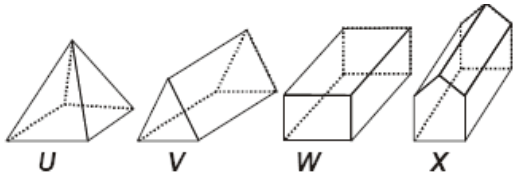
Q3. Find the value of the expression given below?

$\left(\frac{3a^2+2a+5-4}{4}\right) + 5a - 2, \text{ when } a = 4$

- (a) 24
- (b) 39
- (c) 27
- (d) 36

Sol. (b)

Q4. Which of the following figures has 10 vertices?



- (a) Figure U
- (b) Figure V
- (c) Figure W
- (d) Figure X

Sol. (d)

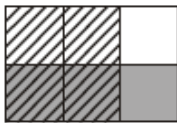
Q5. Which list of integers is in order from greatest to least?

- (a) -42, -39, -4, 40, 41
- (b) -42, 41, 40, -39, -4
- (c) -4, -39, 40, 41, 42
- (d) 41, 40, -4, -39, -42

Sol. (d)

Q6. Which model best represents the expression $\frac{1}{2} \times \frac{1}{3}$?

(a)



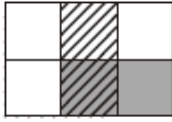
(b)



(c)



(d)



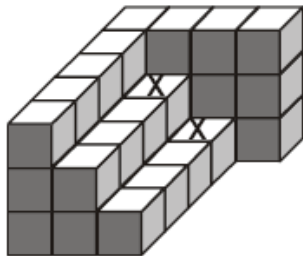
Sol. (b)

Q7. Mr. Samer was trying to find a tablecloth for his rectangular dining table. He knew the area and perimeter of the tabletop. Area = 40 square metres, Perimeter = 28 metres. Which of the following best represents the width and length of the tabletop?

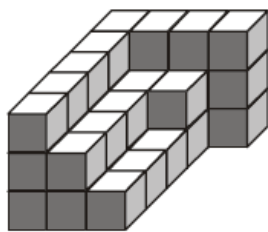
- (a) Length = 10 m, Width = 4 m
- (b) Width = 2m, Length = 20 m
- (c) Width = 5 m, Length = 8 m
- (d) Width = 4 m, Length = 12 m

Sol. (a)

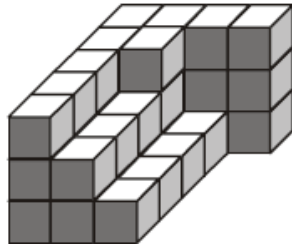
Q8. If 2 unit cubes, one on each are placed on the unit cubes marked 'X' which solid will be obtained?



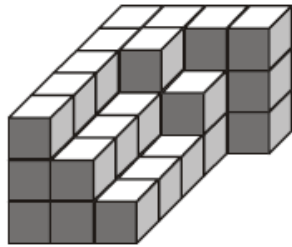
(a)



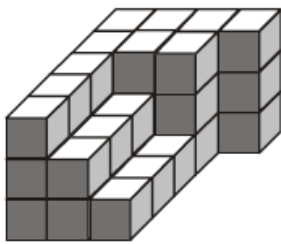
(b)



(c)



(d)



Sol. (c)

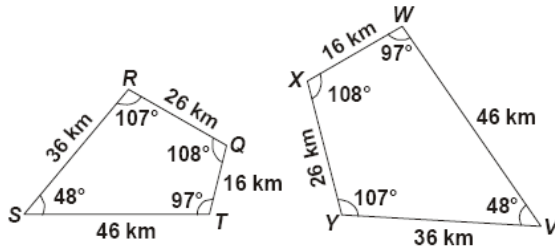
Q9. Fill in the blank of the statement given below.

70 has ____ factors.

- (a) 2
- (b) 4
- (c) 6
- (d) 8

Sol. (d)

Q10. Which of the following is true for the two given congruent figures?



- (a) $\overline{TQ} \cong \overline{XY}$
- (b) $\overline{ST} \cong \overline{XY}$
- (c) $\overline{TQ} \cong \overline{WX}$
- (d) $\angle Q = \angle Y$

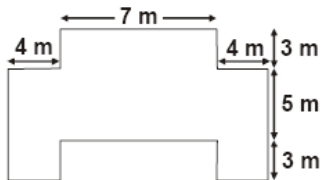
Sol. (c)

Q11. The total cost of 5 teddy bears is the same as the total cost of 9 clowns. Find the cost of a teddy bear.

- (a) Rs. 27
- (b) Rs. 28
- (c) Rs. 30
- (d) Rs. 32

Sol. (a)

Q12. The perimeter of the given figure is _____.



- (a) 68 m
- (b) 48 m
- (c) 58 m
- (d) 50 m

Sol. (c)



Q13. Which of the following digits makes the given statement true?
6, 06, 19? is divisible by 9.

- (a) 3
- (b) 6
- (c) 5
- (d) 8

Sol. (c)

Q14. Given that


$$\text{Smiley} + \text{Smiley} + \text{Frowny} = \text{Frowny} + \text{Frowny} + \text{Frowny} + \text{Frowny}$$

If each  stands for $\frac{1}{4}$, what does each  stand for ?

- (a) $\frac{3}{4}$
- (b) $\frac{3}{2}$
- (c) $\frac{3}{8}$
- (d) $\frac{3}{5}$

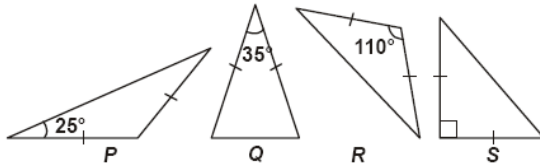
Sol. (c)

Q15. Anushka looked at several different flower arrangements before purchasing one. The arrangements varied in price from Rs. 15.62 to Rs. 37.50. Which measure of data can be used to describe the variation between maximum and minimum price?

- (a) Mean
- (b) Mode
- (c) Range
- (d) Median

Sol. (c)

Q16. Which of the following figures are acute isosceles triangles?



- (a) P only
- (b) Q only
- (c) R only
- (d) R and S only

Sol. (b)

Q17. The value of $\frac{3}{4} + 5\frac{1}{2} - 1\frac{1}{2} \times \frac{9}{10}$ is _____.

- (a) 4.48
- (b) -4.48
- (c) -4.82
- (d) 4.46

Sol. (d)

Q18. Ashwin used the rule listed below to rewrite the expression $10^2 \times 10^5 = 10^7$.
 $10^m \times 10^n = 10^{m+n}$

Based on this rule, which of the following is equivalent to the expression $8^8 \times 8^6$?

- (a) 8^{-10} , because $8^{-4} \times 8^6 = 8^{-4-6}$
- (b) 8^{-12} , because $8^{-4} \times 8^8 = 8^{-4-8}$
- (c) 8^{-2} , because $8^{-8} \times 8^6 = 8^{-8+6}$
- (d) 8^2 , because $8^{-4} \times 8^6 = 8^{-4+6}$

Sol. (c)

Q19. A building is 24m long. The bottom of the ladder is 10 m away from the foot of the building. Find the length of the ladder?

- (a) 12 m
- (b) 24 m
- (c) 26 m
- (d) 8 m

Sol. (c)

- Q20. Amit counted the number of people in line for tickets at the movie theatre. Every time he saw 7 people, he added a tick mark on his counting sheet, as shown below.



Amit saw 6 more people after he added his last tick mark. Which could be used to find u , the total number of people he saw?

- (a) $16 \div 6 + 7 = u$
- (b) $16 \times 6 \times 7 = u$
- (c) $16 \times 7 + 6 = u$
- (d) $16 + 7 - 6 = u$

Sol. (c)

- Q21. It took Abhilasha 20 minutes to apply a coat of paint to a piece of pottery. After each coat she waited for 1 hour 30 minutes for the paint to dry. Which is a reasonable amount of time it could have taken for Abhilasha to have applied 5 coats of paint and for the pottery to be completely dry?

- (a) 505 minutes
- (b) $8\frac{1}{6}$ hours
- (c) 195 minutes
- (d) $9\frac{1}{6}$ hours

Sol. (d)

- Q22. The average of three numbers is $9m + 8$. Two of the three numbers are $2m + 3$ and $4m + 5$. Express the third number in terms of m in the simplest form.

- (a) $9m + 8$
- (b) $27m + 24$
- (c) $21m + 16$
- (d) $21m + 32$

Sol. (c)

- Q23. Hrishant packs boxes for an appliance company. He can pack a large box in 10 minutes and a small box in 4 minutes. He needs to pack 10 large boxes and 20 small boxes. If he starts his work 3.5 hours before closing time, will Hrishant have time to finish the work before closing time if he works without stopping?

- (a) Yes, Hrishant will finish the work in 3 hours.
- (b) No, it will take Hrishant 4 hours to finish
- (c) Yes, Hrishant will finish the work in 2.5 hours.

(d) No, it will take Hrishant 6 hours to finish

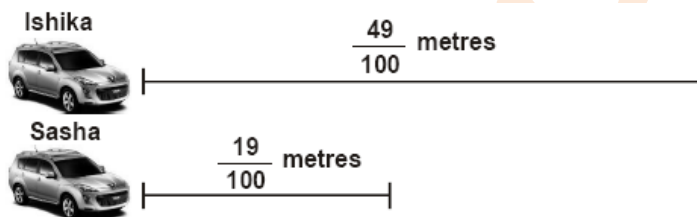
Sol. (a)

Q24. The total length of all songs on a CD, Anshuman bought is about 74 minutes. Each song is between 4 to 6 minutes long. Which is a reasonable number of songs that could be on the CD?

- (a) 10
- (b) 40
- (c) 74
- (d) 16

Sol. (d)

Q25. Ishika and Sasha raced their toy cars. The given diagram shows the distance travelled by the cars during the race. How much farther did Ishika's car travel than Sasha's car?



- (a) $\frac{3}{10}$ m
- (b) $\frac{4}{10}$ m
- (c) $\frac{32}{10}$ m
- (d) $\frac{68}{10}$ m

Sol. (a)

Q26. Tameena has 4 old coins: P, Q, R and S. Coins: P, Q, R and S. Coin R is worth Rs. 2.5. Coin S is worth 2 times the value of coin R. Coin Q is worth 3 times the value of coin R. The four coins are worth Rs. 40 altogether. What is the value of coin P?

- (a) Rs 14
- (b) Rs 18
- (c) Rs 25
- (d) Rs 15

Sol. (c)

- Q27. Ankit can run 100 metres in 12.5 seconds. If he competes in the 400 – metres race, about how many seconds will it take him to run the race?
- (a) 50 sec
 - (b) 40 sec
 - (c) 80 sec
 - (d) 20 sec

Sol. (a)

- Q28. Misha answered 56% of the 150 problems on her history homework correctly. How many problems on her homework did she answer correctly?
- (a) 56
 - (b) 65
 - (c) 84
 - (d) 92

Sol. (c)

- Q29. There are 338 cows and goats on a farm. $\frac{2}{3}$ of the cows are equal to $\frac{1}{5}$ of the goats on the farm. How many cows are there on the farm?
- (a) 78
 - (b) 260
 - (c) 72
 - (d) 270

Sol. (a)

- Q30. Which of the following statements represents the greatest percent of change?
- (a) A tree grew from 6 feet to 12 feet in 1 year.
 - (b) An aquarium that was originally priced at Rs. 90 is now Rs. 140.
 - (c) A person whose salary was Rs 1000 per week is now earning Rs. 1500 per week.
 - (d) A baby who weighed 5 pounds at birth now weighs 20 pounds.

Sol. (c)

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