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7**

**LEVEL - 1
Set A1**

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* # See prospectus/website for details



ROUGH WORK

Instructions for the Candidate

1. You are allowed additional 10 minutes to fill the required details in the RESPONSE SHEET (OMR).
2. The question paper is made as per syllabus guidelines & pattern given in the information Booklet. The Question Paper for Classes 1 to 6 contains 40 Questions each to be answered in 60 minutes. The Question paper for classes 7 to 12 contains 60 Questions each to be answered in 60 minutes. All questions are compulsory. Further instructions are given in the instruction letter to the teacher.
3. Use the response sheet to mark your responses by darkening the required circle. The response sheet has to be returned to the foundation, duly filled in. THE STUDENT CAN RETAIN THE QUESTION PAPER.

MENTAL ABILITY

1. What kind of triangle has three equal sides?

- (1) Isosceles
- (2) Scalene
- (3) Equilateral
- (4) None of these

2. Ritu is 3 years older than Raju. Raju is 5 years younger than Shefali. If Shefali is 12, How old is Ritu?

- (1) 10 yrs
- (2) 7 yrs
- (3) 12 yrs
- (4) None of these

3. When the integers 10, 0, 5, -5 , -7 are arranged in descending or ascending order, which integer always remains in the middle of the arrangement?

- (1) 0
- (2) 5
- (3) -5
- (4) None of these

4. Find the missing number in this sequence:

4, 10, 16, 22,

- (1) 28
- (2) 25
- (3) 30
- (4) None of these

5. What value of p is a solution to this equation?

$$P + 17 = 24$$

- (1) 6
- (2) 7
- (3) 8
- (4) None of these

6. Is the dotted line a line of symmetry?



- (1) Yes
- (2) No
- (3) Can't say
- (4) None of these

7. Circle graphs are out of which number?

- (1) 100
- (2) 360
- (3) 10
- (4) None of these

8. If 50% of a is 3.25, then what is the value of a ?

- (1) 7.00
- (2) 6.5
- (3) 5.25
- (4) None of these

9. A farmer wants to tie his buffalo with rope so that it can graze the grass in an area of 27 m^2 , what should be the length of the rope? (assume $\pi = 3$ for this question)

- (1) 7 m
- (2) 1 m
- (3) 3 m
- (4) None of these

10. Nine less than a number is nine. Find the number.

- (1) 18
- (2) 9
- (3) 0
- (4) None of these

MATHEMATICS

11. Which sign makes the statement true?

$$91,000 \square 9.1 \times 10^3$$

- (1) >
- (2) <
- (3) =
- (4) None of these

12. What is the lowest common multiple of 9 and 5?

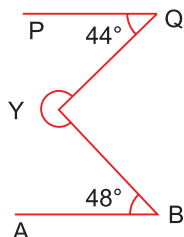
- (1) 5
- (2) 9
- (3) 45
- (4) None of these

13. Which integer represents this scenario?

₹10 discount

- (1) -10
- (2) 10
- (3) 10
- (4) None of these

14. If AB and PQ are parallel, compute the measure of $\angle Y$.



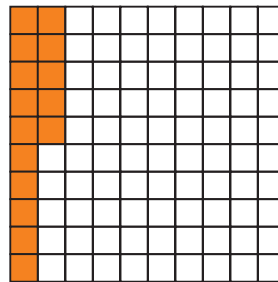
- (1) 255°
- (2) 268°
- (3) 46°
- (4) 180°

15. Evaluate the expression:

$$3 + 4 \div 1$$

- (1) 3
- (2) 8
- (3) 7
- (4) None of these

16. What decimal number is illustrated?

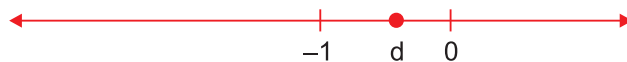


- (1) 15.0
- (2) 0.15
- (3) 1.5
- (4) None of these

17. Which fraction is equivalent to $\frac{14}{35}$?

- (1) $\frac{4}{5}$
- (2) $\frac{2}{5}$
- (3) $\frac{7}{5}$
- (4) None of these

18. The number line shows an unknown number, d .



What is the sign of $3d$?

- (1) Positive
- (2) Negative
- (3) Can't say
- (4) None of these

19. Solve for p .

$$10^p = 10,000$$

- (1) 2
- (2) 3
- (3) 4
- (4) None of these

20. What is the ratio of rectangles to triangles?



- (1) $\frac{2}{3}$
- (2) $\frac{2}{5}$
- (3) $\frac{3}{2}$
- (4) None of these

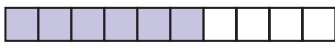
21. Are these ratios equivalent?

3 visitors: 2 days

11 visitors: 14 days

- (1) Yes
- (2) No
- (3) Can't say
- (4) None of these

22. What percentage of the shape is shaded?



- (1) 6%
- (2) 60%
- (3) 50%
- (4) None of these

23. An eight pack of bouncy balls costs Rs. 106.00.

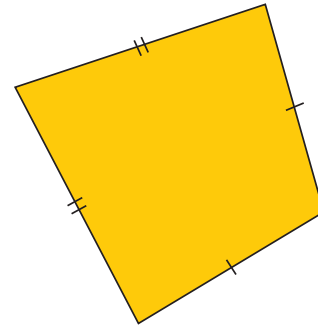
What is the unit price?

- (1) Rs. 13.00
- (2) Rs. 13.25
- (3) Rs. 14.10
- (4) None of these

24. Which is more, 98 cm or 1 m?

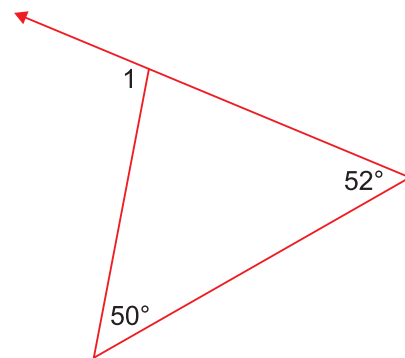
- (1) 98 cm
- (2) 1 m
- (3) neither; they are equal
- (4) None of these

25. What name best describes this shape?



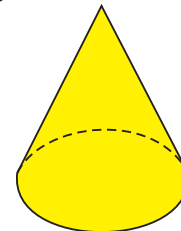
- (1) Kite
- (2) Trapezium
- (3) Square
- (4) None of these

26. What is angle 1?



- (1) 180°
- (2) 90°
- (3) 102°
- (4) None of these

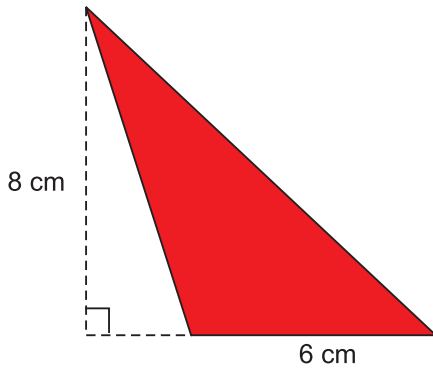
27. Look at this figure:



What is the shape of its base?

- (1) Circle
- (2) Pentagon
- (3) Hexagon
- (4) None of these

28. What is the area of the shaded region?



- (1) 24 cm
- (2) 24 cm²
- (3) 48 cm²
- (4) None of these

29. Look at this set of six numbers:

2 7 8 2 1 6

How would the mode change if the number 2 replaced the number 7 in the set?

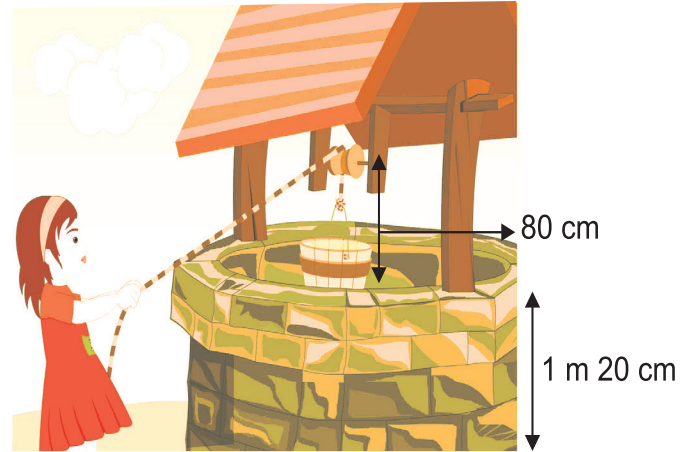
- (1) Increase
- (2) Decrease
- (3) No change
- (4) None of these

30. Which is a better estimate for the weight of a piece of gum?

- (1) 5 grams
- (2) 5 kilograms
- (3) 5 litres
- (4) None of these

31. Water level in a well was 20 m below ground level. During rainy season, rain water collected in different water tanks was drained into the well and the water level rises 5m above the previous level. The wall of

the well is 1m 20 cm high and the pulley is fixed at height of 80 cm. Reena wants to draw water from the well. The minimum length of the rope that she can use is



- (1) 17 m
- (2) 18 m
- (3) 96 m
- (4) None of these

32. Deepak has pieces of construction paper that are 3 cm long and 5 cm wide. For an art project, he wants to create the smallest possible square, without cutting or overlapping any of the paper. How long will each side of the square be?



- (1) 8 cm
- (2) 15 cm
- (3) 10 cm
- (4) None of these

33. Use counters to subtract $3 - (-1)$

Start with: 

Subtract: 

Which counters show the difference?

(1) 

(2) 

(3) 

(4) None of these

34. The average of any four consecutive odd integers is always

(1) a proper fraction

(2) a prime number

(3) even

(4) odd

35. Rhea has Rs. 136.00. Does she have enough to buy a gift bag and a package of confetti?

package of purple streamers	₹45.00
gift bag	₹78.00
package of confetti	₹52.50
fancy ribbon	₹17.50
plastic straw	₹10.50

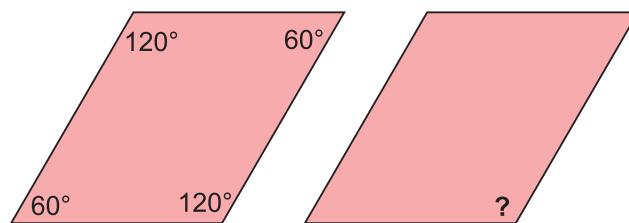
(1) Yes

(2) No

(3) Can't say

(4) None of these

36. If these two figures are similar, what is the measure of the missing angle?



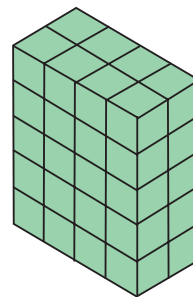
(1) 60°

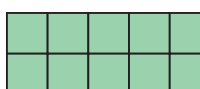
(2) 120°

(3) 180°

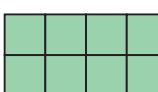
(4) None of these

37. If you look at this object from the top, what will you see?



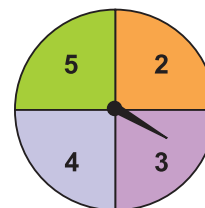
(1) 

(2) 

(3) 

(4) None of these

38. You spin the spinner once.



What is P (not 5)?

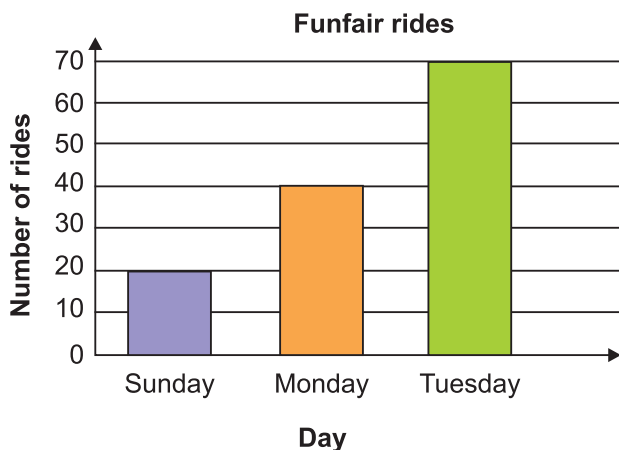
(1) 75%

(2) 68%

(3) 58%

(4) None of these

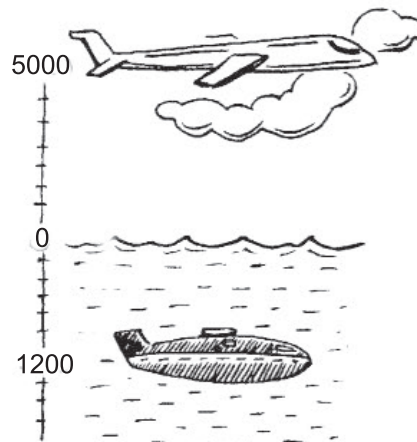
39. Om went on a holiday to a funfair and counted how many rides he went on each day.



How many more rides did Om ride on Tuesday than on Monday?

- (1) 70 rides
- (2) 30 rides
- (3) 40 rides
- (4) None of these

40. A plane is flying at the height of 5000 m above the sea level. At a particular point, it is exactly above a submarine floating 1200 m below the sea level. What is the vertical distance between them?



- (1) 1200 m
- (2) 3800 m
- (3) 6200 m
- (4) None of these

INTERACTIVE SECTION

41. Identify the property used in the following:

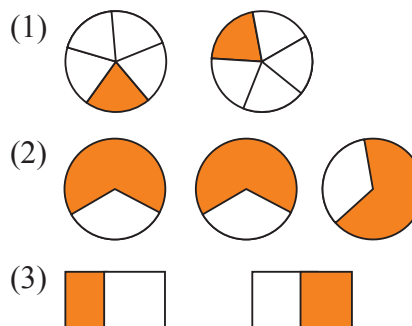
$$2 \times 13 + 8 \times 13 = (2 + 8) \times 13$$

- (1) Distributive
- (2) Commutative
- (3) Closure
- (4) None of these

42. $(-50) \div \underline{\hspace{2cm}} = -1$, number in the blank will be

- (1) 49
- (2) 50
- (3) 51
- (4) None of these

43. Which one of the following drawing shows $2 \times \frac{1}{5}$

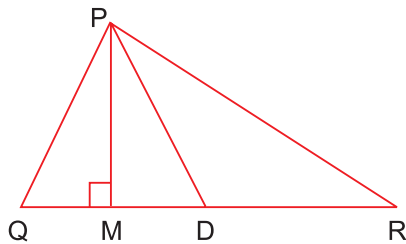


- (4) None of these

44. Write an expression: Namit's father's age is 7 yrs more than 5 times Namit's age. If Namit's age is y yrs, then father's age is

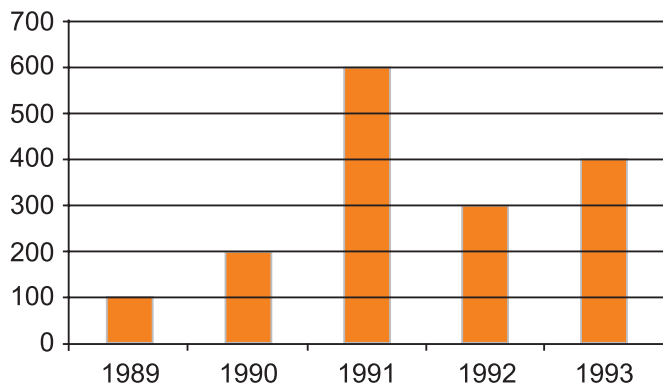
- (1) $5y + 7$
- (2) $7 - 5y$
- (3) $5y - 7$
- (4) None of these

45. In $\triangle PQR$, PM is



- (1) Median
- (2) Altitude
- (3) Bisector
- (4) None of these

Read the following bar graph which shows the number of articles sold by a store during five consecutive years and answer the question given below (Q46-Q50):

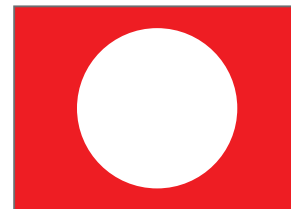


- 46. How many articles were sold in 1990?
 - (1) 100
 - (2) 200
 - (3) 300
 - (4) None of these
- 47. In which year 500 articles were sold?
 - (1) 1990
 - (2) 1991
 - (3) 1992
 - (4) None of these
- 48. In which year fewer than 200 articles were sold?
 - (1) 1989
 - (2) 1990
 - (3) 1991
 - (4) None of these

49. How many articles were sold from 1989 to 1991?

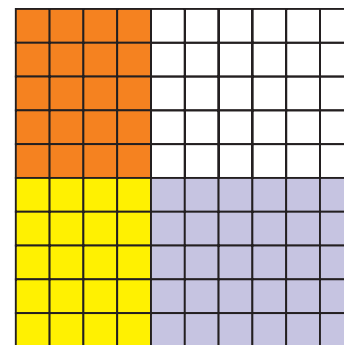
- (1) 300
- (2) 700
- (3) 900
- (4) None of these

50. In fig., the area of rectangular sheet is 50 cm^2 and the area of circle inside the sheet is 15 cm^2 cut from the sheet, then the area of remaining sheet will be



- (1) 35 cm
- (2) 35 cm^2
- (3) 65 cm^2
- (4) None of these

51. Use the grid to fill in the missing number.



$0.4 \times 0.5 = \underline{\hspace{2cm}}$

- (1) 0.02
- (2) 0.002
- (3) 0.2
- (4) None of these

52. How much money does Ayush need to buy 8 red jumpers and 2 black jackets?

red jumper	₹1,330
blue jumper	₹1,013
pair of khaki trousers	₹1,458
black jacket	₹1,290
pair of jeans	₹1,968

- (1) ₹13,220
- (2) ₹10,640
- (3) ₹2,580
- (4) None of these

53. Which expression is equivalent to $4(d + 4)$?

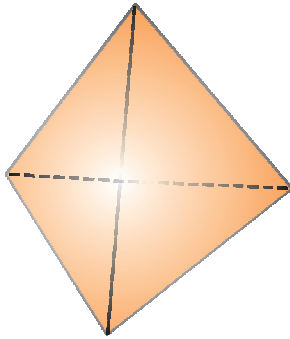
- (1) $8d$ (2) $4d + 16$
(3) $16d + 4$ (4) None of these

54. Point P is the midpoint of line segment OQ, and line segment PQ is 10 inches long. What is the length of line segment OQ?



- (1) 10 in (2) 20 in
(3) 30 in (4) None of these

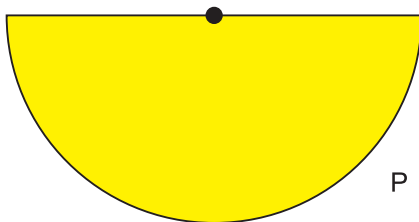
55. Look at this figure:



What is the shape of its base?

- (1) Triangle (2) Rectangle
(3) Hexagon (4) None of these

56. The perimeter of semicircle is 20.56 km. What is semicircle's radius?



Use $\pi = 3.14$

- (1) 6.5 km
(2) 5.65 km
(3) 6.55 km
(4) None of these

57. Which would you use if you were to display the average snowfall in Shimla over a time period of one week?

- (1) Bar Graph
(2) Double Bar Graph
(3) Double Line Graph
(4) None of these

58. How long is the golden chain with 8 links?



- (1) 68 (2) 64
(3) 66 (4) None of these

59. The deadline for a project was originally Wednesday i.e. September 17th. The deadline was then changed to 48 days later. What day of the week is the new deadline?

- (1) Tuesday
(2) Saturday
(3) Monday
(4) None of these

60. How many pages do I turn over to go from page 33 to page 66?

(odd number pages are on the right)

- (1) 16
(2) 17
(3) 33
(4) None of these



END OF THE EXAM