

## 1. Choose the correct answer

1. Which of the following are co-primes? (a) 8.10 (b) 9.10 (d) 15,18 c) 6.8 2. The number of primes between 90 and 100 is (b) 1 (a) 0(c) 2(d) 3 3. The total number of even prime numbers is (a) 0(b) 1 (c) 2(d) unlimited 4. The least prime number is (a) 1 (b) 2 (c) 3 (d) 5 5. If 1\*548 is divisible by 3, then \* can take the value (b) 2 (a) 0(c) 7(d) 8 6. 5\*2 is a three digit number with \* as a missing digit. If the number is divisible by 6, the missing digit is. (b) 3 (c) 6 (d) 7 (a) 27. The LCM of 24, 36 and 40 is (a) 4 (b) 90 (c) 360 (d) 720 8. What are two numbers called having only 1 as a common factor. (b) twin prime numbers (a) co-prime numbers (c) composite numbers (d) prime numbers. 9. The HCF of 12 and 16 is (a) 2 (b) 4 (c) 6(d) 1 10. Two distinct lines meeting at a point are called (a) collinear lines (b) intersecting lines (c) parallel lines (d) none of these 11. An angle is made up of two \_\_\_\_\_\_ starting from common end point. (b) lines (a) vertex (c) rays (d) line segments 12. How many lines pass through one given point? (b) two (c) countless (a) one (d) none 13. The line segments forming a polygon are called (a) vertex (b) sides (c) angle (d) curve 14. The lines which do not intersect and have equal distance between them are called: (a) parallel lines (b) perpendicular lines (c) intersecting lines (d) straight lines 15. The angle measure for one complete revolution is (a)180° (b)360° (c)90° (d) none of these. 16. Through what angle measure does the hour hand of a clock turn through, when it goes from 3 to 9? (a)90° (b)360° (c)180° (d)none of these.

17. What part of a revolution have you turned through if you stand facing east and turn clockwise to face west?

(b) an isosceles triangle

(a)1/4 (b)1/2 (c)3/4 (d)none of these.

18. The succeeding number of the number 0 is

(a)-1 (b)0 (c)1 (d)11.

19. Which of the following is true?

 $(a) 0 < -8 \quad (b) 0 > -8 \quad (c) 4 < -4 \quad (d) 0 > 6.$ 

20. A triangle having three equal sides is called

- (a) a scalene triangle
- (c) an equilateral triangle (d) a right triangle.

## 2) Write true or false

- a) Every positive integer is larger than every negative integer.
- b) .Zero is greater than every positive integer.
- c) Zero is smaller than every negative integer.
- d) Farther a number from zero to the right, smaller is its value.
- e) Greatest negative integer is -1.
- f) -10 is to the right of -8 on a number line.
- g) The product of two even numbers is always even.
- h) The sum of three odd numbers is even.
- i) All prime numbers are odd.
- j) Prime numbers do not have any factors.
- k) The opposite sides of a trapezium are parallel.
- 1) All the sides of a parallelogram are of equal in length.
- m) The diagonals of a square are perpendicular to each other.
- n) All the angles of a rectangle are not equal.
- o) The numbers -1, -2, -3, -4 are known as negative whole numbers
- p) Every integer has a predecessor and a successor.

## 3. Fill in the blanks

- a) The numbers which have more than two factors are called \_\_\_\_\_\_.
- b) The numbers which are not multiples of 2 are known as \_\_\_\_\_\_.
- c) The number which is neither prime nor composite is \_\_\_\_\_.
- d) Every number is a \_\_\_\_\_ and \_\_\_\_\_ of itself.
- e) The set of whole numbers and negative numbers is called as \_\_\_\_\_\_.
- f) On a horizontal number line negative numbers are located on the \_\_\_\_\_\_ side of zero.
- g) The numbers which have factors as 1 and the number itself are known as \_\_\_\_\_.
- h) The LCM of two or more given numbers is the lowest common \_\_\_\_\_.
- i) 10 more than -7 is \_\_\_\_\_.
- j) The smallest integer greater than every negative integer is \_\_\_\_\_.
- k) A line segment has ——- end points.

- 1) Two distinct lines meeting at a point are called——
- m) A simple closed curve made up of line segments are called------
- n) A line is made up of \_\_\_\_\_ points
- o) In a line segment XY, the points X & Y are called the \_\_\_\_\_ points of the segments.
- p) The ray AB, A is called the\_\_\_\_\_.
- q) One & the only one line can be drawn through \_\_\_\_\_ points.
- r) \_\_\_\_\_lines do not intersect each other.
- s) The measure of a complete angle is \_\_\_\_\_
- t) The angle name for half a revolution is \_\_\_\_\_
- u) The angle name for one-fourth revolution is \_\_\_\_\_
- v) If all the angles in a triangle are equal, then its sides are also \_\_\_\_\_

## 4. Using divisibility tests, determine which of the following numbers are divisible by 2, 3, 4, 5, 6, 8, 9, 10, 11 (write Yes or No)

Number	Divisible by								
	2	3	4	5	6	8	9	10	11
128 990 1586 275 6686 639210 429714 2856 3060 406839	Yes	No	Yes	No	No	Yes	No	No	No

5. Solve the following.

- 1. Using prime factorisation method, find the factors of 452, 124
- 2. Player 1 and player 2 are running around a circular field. Player 1 takes 16 minutes to take one round, while Player 2 completes the round in 20 minutes. If both start simultaneously and go in the same direction, after how much time will they meet at the starting point?
- 3. Find the least number, which, when divided by 35, 56 and 91, leaves the same remainder of 7, respectively.

- 4. Find the least number divided by 28 and 32, leaving the remainder 8 and 12, respectively.
- 5. Two alarm clocks ring their alarms at regular intervals of 72 seconds and 50 seconds. If they beep together at noon, at what time will they beep again for the first time?
- 6. Find the greatest number of 4-digits which is exactly divisible by 40, 48 and 60.
- 7. What is the least number of saplings that can be arranged in rows of 12, 15 or 40 in each row?
- 8. A certain number of students can be arranged in groups of 3, 4, 6 or 8 with no student left behind. Find the number of students.
- 9. Answer the following questions based on the given figure.



- 1. ∠XOY is an \_\_\_\_\_.
- 2. \_\_\_\_\_ is the vertex of  $\angle XOY$ .
- 3. OX & OY are called the \_\_\_\_\_.
- 4. \_\_\_\_, \_\_\_\_, & \_\_\_\_ are the points on the  $\angle XOY$ .
- 5. The point \_\_\_\_\_ lies on the interior of  $\angle XOY$ .
- 6. The points \_\_\_\_\_ & \_\_\_\_ are at the exterior of  $\angle XOY$
- 10. Draw the rough sketch to represent the following:
  - a) Point F lies on line segment CD.
  - b) Ray SP and Ray ST intersect at S.
  - c) Two angles having one ray in common.
  - d) Line m contain points T and L but not point C
- 11. Simplify:
  - a) 36 + (-43) (-9)b) (-12) - (-18) + 22c) 89 - 58 + 28 - (-32)(d)  $193 + 208 - \{29 - (367)\}$ (e) 56 - 34 + 235 - (123)(f)  $(84 - 34) \times (84 + 45)$
- 12. Use number line and add the integers: (-2) + 5 + (-4)
- 13.Observe the figure and answer the questions given below



14. Given below are clocks. Show the time using needles to depict the corresponding angles.



15. By observation, arrange the following angles in descending order. Also state the type of angle.



- 16.. Classify the triangle according to sides, that is, equilateral, isosceles and scalene triangles
  - (a) 6 cm, 3 cm, 5 cm. (b) 6 cm, 6 cm, 6 cm. (c) 7 cm, 7 cm, 5 cm.
  - (d) 8 cm, 12 cm, 10 cm. (e) 3 cm, 4 cm, 5 cm. (f) 3.5 cm, 3.5 cm, 4.5 cm
- 17. Find the number of right angles turned through by the hour hand of a clock when it goes from

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(a) 3 to 6 (b) 2 to 8 (c) 5 to 11 (d) 10 to 1 (e) 12 to 9 (f) 12 to 6
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18. For each of the given angles, state if they are acute, obtuse, straight, right, or reflex angle.



19.17 What fraction of a clockwise revolution does the hour hand of a clock turn through, when it goes from

(a) 3 to 9 (b) 4 to 7 (c) 7 to 10 (d) 12 to 9 (e) 1 to 10 (f) 6 to 3

- **20.** Two milk tankers contain 450 litres and 600 litres of milk respectively. Find the maximum capacity of a container which can measure the milk of both the tankers when used an exact number of times.
- 21. The length, breadth and height of a box are 75cm, 85cm and 95cm respectively. Find the longest tape which can measure the three dimensions of the room exactly