



RAMAGYA SCHOOL, NOIDA
IX/MATHEMATICS/2017-18
OLYMPIAD PRACTICE WORKSHEET

(CONCEPT BASED)

1. The sum of the smallest and the largest of the numbers 0, 5129; 0,9; 0,89 and 0,289 is:
A 1,189 B 0,8019 C 1,428 D 1,179 E 1,4129
2. A watch keeps exact time, but it has only an hour hand. When the hour is $\frac{2}{5}$ of the distance between the 4 and the 5, the correct time is:
A 04:10 B 04:20 C 04:22 D 04:24 E 04:26
3. $6 \times 111 - 3 \times 111$ are equal to:
A 222 B 333 C 444 D 555 E 666
4. The number of 3-digit is divisible by 6, is
a. 149 b. 166 c. 150 d. 151
5. What is 1004 divided by 52?
a. 52 b. 520 c. 502 d. 5200

(APPLICATION BASED)

6. How many linear equations in x and y can be satisfied by $x = 1$ and $y = 2$?
(a) three (b) only one (c) two (d) infinitely many
7. The equation of the line whose graph passes through the origin, is :
(a) $2x + 3y = 6$ (b) $2x + 3y = 0$ (c) $2x + 3y = 1$ (d) none of these
8. Equation of the line $y = 0$ represents:
(a) both x -axis and y -axis (b) origin (c) y -axis (d) x -axis
9. The graph of the linear equation $2x + 3y = 9$ cuts y -axis at the point:
(a) (3,1) (b) $\frac{9}{2}, 0$ (c) (0, 9) (d) (0, 3)

10. Age of „x“ exceeds age of „y“ by 7 yrs. This statement can be expressed as linear equation as

(a) $x + y - 7 = 0$ (b) $x + y + 7 = 0$ (c) $x - y + 7 = 0$ (d) $x - y - 7 = 0$

11. Any point on the x-axis is of the form

(a) (x, y) (b) $(0, y)$ (c) $(x, 0)$ (d) (x, x)

12. Find out which of the following equations have $x=1, y = 1$ as a solution:

(a) $2x + 5y = 7$ (b) $5x + 3y = 14$ (c) $2x + 3y = 7$ (d) None of these

13. If $(2k-1, k)$ is a solution of the equation $10x-9y=12$, then $k=$

a. 1 b. 2 c. 3 d. 4

14. $x=2, y=-1$ is a solution of the linear equation

a. $x+2y=0$ b. $x+2y=4$ c. $2x+y=0$ d. $2x+y=5$

15. If $(4, 19)$ is a solution of the equation $y=ax+3$, then $a=$

a. 3 b. 4 c. 5 d. 6

(HOTS)

16. If the graph of the equation $4x+3y=12$ cuts the coordinate axes at A and B, then hypotenuse of right triangle AOB is of length

a. 4 units b. 3 units c. 5 units d. none of these

17. The distance between the graphs of the equations $y= -1$ and $y=3$ is

a. 2 b. 4 c. 3 d. 1

18. The graph of the linear equation $2x-y = 4$ cuts x-axis at

a. $(2, 0)$ b. $(-2, 0)$ c. $(0, -4)$ d. $(0, 4)$

19. The area of the triangle formed by the points $P(0, 1), Q(0, 5)$ and $R(3, 4)$ is

A) 16 sq units B) 8 sq units C) 4 sq units D) 6 sq units

20. The perpendicular distance of the point $P(4, 3)$ from x-axis is

A. 4 B. 3 C. 5 D. None of these