



SOLUTIONS OF WORKSHEET-14 <u>SUBJECT – MATHEMATICS</u> 1st - Term

Chapter: Co-ordinate Geometry

Class: XI

Topic: Straight Lines 3

Date: 15.08.2020

Choose the correct option

(1 x 15=15)

- 1. If the straight lines 2x 3y + 5 = 0 and px + 2y 6 = 0 be parallel to each other, state which of the following is the value of p - a. 4/3
 - b. 3/4
 - c. 4/3
 - d. 3/4
- 2. If the straight lines 5x 9y 12 = 0 and px + 10y 2 = 0 be perpendicular to each other , state which of the following is the value of p –
 - a. 18b. 9
 - c. 9
 - d. 18
- 3. The angle between the lines x = a and y = b is
 - a. 0
 - b. 90 degree
 - c. 180 degree
 - d. None of these.

- 4. The st. lines joining the points (3 , -5) and (-3 , -5) is parallel to the
 - a. Y axis
 b. X axis
 c. Line 3x + 5y = 0
 d. Line 3x = 5y
- 5. Which of the following is the slope of any line parallel to the line ax + by + c = 0 (a & b are non zero) ?
 a. a/b
 b. a/b
 c. b/a
 - **d. b**/a
- 6. Which of the following is the slope of any line perpendicular to the line ax + by + c = 0 (a & b are non zero)?
 - a. a/b
 - b. a/b
 c. b/a
 - $\frac{\mathbf{c}}{\mathbf{d}} = \frac{\mathbf{b}}{\mathbf{a}}$
- 7. The st. lines joining the points (2, -4) and (2, 6) makes an angle of 90 degree with the
 - a. Y axis
 - b. X axis
 - c. Line y = 3x
 - d. Line x = 3y
- 8. The perpendicular distance of the st. line 6x 8y = 25 from the point (-2, -4) is
 - a. 0.5 units
 - **b. 0.25 units**
 - c. 1 unit
 - d. 2 units

- 9. If the distance between the lines 5x + 12y = 1 and 10x + 24y + k = 0 be 2 units then the value of k is
 - a. 54
 - **b.** 50
 - c. 25
 - d. 100

The perpendicular distance of the point (4, -1) from the st.
 line through the points (1, 1) & (-11, -4) is -

- a. 1 unit
- b. 2 units
- c. 3 units
- d. 4 units

11. The distance between two parallel lines 3x + 4y + 9 = 0 and 3x + 4y + 7 = 0 is –

- a. 1/2 unit
- b. 2/3 unit
- **c.** 2/5 unit
- d. 1/5 unit
- 12. A(4, 6), B(-1, 3) and C(2, -2) are three given points. The length of the perpendicular from B on AC is
 - **a.** $\sqrt{6}$ unit
 - **b.** $\sqrt{3}$ unit
 - **c.** $\sqrt{\frac{2}{3}}$ unit
 - **d.** none of these.

13. The distance between the lines x = a and x = b (where b>a) is-

a. $\sqrt{(a^2 - b^2)}$ **b.** $\sqrt{(b^2 - a^2)}$ **c.** b - a**d.** a - b 14. The distance of the st. line a(x-a) + b(y-b) = 0 from the origin is –

- a. a unit
- **b.** b unit
- **c.** $\sqrt{(a^2 + b^2)}$ unit
- **d.** $\sqrt{(a^2 b^2)}$ unit
- 15. The equation of the st. line mid way between the lines 2x + 3y = 5 and 2x + 3y + 1 = 0 is
 - a. 2x + 3y = 1
 b. 2x + 3y = 2
 c. 3x + 2y = 3
 d. 2x + 3y = 4

Prepared by :-

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