EduSahara™ Assignment

Name : Geometric Figure Properties and Collinearity

Chapter : Coordinate Geometry

Grade : SSC Grade X

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1. The points $(8,(-3)),(3,(-8))$ and $(\left(\frac{11}{2}+\frac{5}{2}\sqrt{3}\right),\left(-\frac{11}{2}-\frac{5}{2}\sqrt{3}\right))$ represent

   (i) scalene triangle (ii) isosceles triangle (iii) right angled triangle (iv) equilateral triangle

2. The points $((-7),(-5)),((-8),6)$ and $(5,\frac{18}{11})$ represent

   (i) isosceles triangle (ii) scalene triangle (iii) equilateral triangle (iv) right angle triangle

   (v) collinear points

3. The points $((-2),(-6)),(2,(-3)),(5,(-7))$ and $(1,(-10))$ represent

   (i) square (ii) rectangle (iii) trapezium (iv) parallelogram (v) rhombus

4. The points $((-4),(-6)),(3,(-6)),(6,(-1))$ and $((-1),(-1))$ represent

   (i) parallelogram (ii) rhombus (iii) rectangle (iv) square (v) trapezium

5. The points $((-6),(-2)),(1,(-2)),(1,1)$ and $((-6),1)$ represents

   (i) rectangle (ii) parallelogram (iii) square (iv) rhombus (v) trapezium

6. The points $((-5),2),(8,6)$ and $(6,(-6))$ represent

   (i) right angle triangle (ii) collinear points (iii) isosceles triangle (iv) scalene triangle

   (v) equilateral triangle

7. The points $((-6),(-1)),((-3),3)$ and $(1,0)$ represent

   (i) equilateral triangle (ii) isosceles right angled triangle (iii) right angle triangle (iv) scalene triangle

   (v) collinear points

8. The points $((-3),(-6)),(5,(-6))$ and $(5,(-3))$ represent

   (i) scalene triangle (ii) equilateral triangle (iii) isosceles right angled triangle (iv) right angle triangle

   (v) collinear points

9. The points $((-1),(-3)),(6,(-7)),(13,(-3))$ and $(6,1)$ represent

   (i) parallelogram (ii) trapezium (iii) rectangle (iv) square (v) rhombus

10. The points $(5,6),((-5),(-6))$ and $((-\frac{5}{8}),(-\frac{3}{4}))$ represents

    (i) isoceles triangle (ii) collinear points (iii) equilateral triangle (iv) right angle triangle

11. Find the value of k such that the points $((-8),(-4)),((-\frac{5}{4}),\frac{37}{20})$ and $(k,9)$ are collinear

    (i) 8 (ii) 7 (iii) 6 (iv) 9 (v) 5

12. Find the value of k such that the points $((-6),0),((-4),\frac{10}{3})$ and (-3,k) are collinear

(i) 5 (ii) 7 (iii) 6 (iv) 3 (v) 4

13. Which of the following sets of points are collinear?

(i) $((-4),(-2)),(5,(-4)),(7,(-4))$ (ii) $((-4),(-2)),((-6),8),(8,2)$ (iii) $((-8),6),(8,6),(7,7)$

(iv) $((-7),(-8)),(6,4),(\frac{31}{3},8)$ (v) $(3,(-7)),(4,(-8)),((-2),(-5))$

14. Find the area of the quadrilateral formed by $((-6),(-8)),(0,(-4)),((-5),(-1))$ and $((-7),(-3))$

(i) 22 (ii) 24 (iii) 26 (iv) 28 (v) 25

15. Find the relation between x and y if the points $(x,y),((-8),(-4))$ and $((-5),(-7))$ are collinear

(i) $(4x-14y-80)=0$ (ii) $(-4x-32)=0$ (iii) $(-x+3y+16)=0$ (iv) $(-3x-3y-36)=0$

(v) $(3x-11y-62)=0$

16. Find the area of the triangle formed by the points $(7,2),(5,(-1))$ and $(7,8)$

(i) 5 (ii) 6 (iii) 9 (iv) 4 (v) 7

17. Find the perimeter of the triangle formed by the points $(2,7),(8,2)$ and $(0,6)$

(i) $(\sqrt{61}+5\sqrt[4]{5})$ (ii) $(\sqrt{61}+25)$ (iii) $(\sqrt{59}+5\sqrt{5})$ (iv) $(\sqrt{61}+5\sqrt{5})$ (v) $(\sqrt{63}+5\sqrt{5})$

18. Find the lengths of the sides of the triangle formed by the points $((-8),(-8)),((-4),(-3))$ and $((-4),(-6))$

(i) $\sqrt[4]{41}, 3, 2\sqrt{5}$ (ii) $\sqrt{41}, 3, 2\sqrt{7}$ (iii) $\sqrt{41}, 3, 2\sqrt{5}$ (iv) $\sqrt{41}, 2, 2\sqrt{5}$

Assignment Key

1) (iv)	2) (i)	3) (i)	4) (i)	5) (i)	6) (iv)
7) (ii)	8) (iv)	9) (v)	10) (ii)	11) (ii)	12) (i)
13) (iv)	14) (v)	15) (iv)	16) (ii)	17) (iv)	18) (iii)