EduSahara™ Assignment

Name : Geometric Figure Properties and Collinearity

Chapter : Coordinate Geometry

Grade : SSC Grade X

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1. The points $(1,(-7)),(4,3)$ and $((\frac{5}{2}-5\sqrt{3}),(-2+\frac{3}{2}\sqrt{3}))$ represent

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

2. The points $((-3),5),((-8),0)$ and $((-\frac{1}{7}),(-\frac{20}{7}))$ represent

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

   (v) isosceles triangle

3. The points $((-2),(-4)),(1,(-1)),(4,(-4))$ and $(1,(-7))$ represent

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

4. The points $((-2),(-2)),(6,(-2)),(8,3)$ and $(0,3)$ represent

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

5. The points $((-4),(-1)),(3,(-1)),(3,3)$ and $((-4),3)$ represents

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

6. The points $((-2),2),(5,(-7))$ and $((-6),4)$ represent

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

   (v) isosceles triangle

7. The points $((-6),(-4)),((-3),0)$ and $(1,(-3))$ represent

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

   (v) scalene triangle

8. The points $((-5),(-4)),(1,(-4))$ and $(1,(-1))$ represent

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

   (v) isosceles right angled triangle

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

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

10. The points $((-2),4),(2,(-4))$ and $((-\frac{2}{3}),\frac{4}{3})$ represents

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

11. Find the value of k such that the points $((-8),(-5)),((-\frac{4}{3}),(-\frac{5}{9}))$ and $(k,5)$ are collinear

    (i) 6 (ii) 10 (iii) 8 (iv) 4 (v) 7

12. Find the value of k such that the points $((-5),(-1)),((-\frac{5}{2}),\frac{3}{4})$ and (5,k) are collinear

(i) 5 (ii) 6 (iii) 4 (iv) 8 (v) 7

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

(i) $(3,2),(6,(-6)),(6,1)$ (ii) $((-3),4),((-2),(-7)),(7,5)$ (iii) $((-2),1),(6,(-8)),((-8),\frac{31}{4})$

(iv) $(1,(-7)),((-3),6),((-8),0)$ (v) $((-5),(-6)),((-7),(-7)),((-5),7)$

14. Find the area of the quadrilateral formed by $((-5),(-5)),((-2),1),((-8),1)$ and $((-9),0)$

(i) $\frac{47}{2}$ (ii) $\frac{43}{2}$ (iii) 45 (iv) $\frac{45}{2}$ (v) $\frac{45}{4}$

15. Find the relation between x and y if the points $(x,y),(5,(-1))$ and $((-5),(-2))$ are collinear

(i) $(-x+10y+15)=0$ (ii) $(6x+y-29)=0$ (iii) $(-8x+32)=0$ (iv) $(-x-9y-23)=0$ (v) $(7x-9y+17)=0$

16. Find the area of the triangle formed by the points $(1,7),((-6),3)$ and $(5,7)$

(i) 7 (ii) 8 (iii) 6 (iv) 10 (v) 9

17. Find the perimeter of the triangle formed by the points $(5,7),((-3),1)$ and $((-6),8)$

(i) $(10+\sqrt{58}+\sqrt{122})$ (ii) $(10+\sqrt{61}+\sqrt{122})$ (iii) $(10+\sqrt{58}+\sqrt[4]{122})$ (iv) $(10+\sqrt{58}+122)$

(v) $(10+\sqrt{56}+\sqrt{122})$

18. Find the lengths of the sides of the triangle formed by the points $(8,4),((-3),(-6))$ and $(0,7)$

(i) $\sqrt{221},\sqrt{178},\sqrt{75}$ (ii) $\sqrt{221},\sqrt{178},\sqrt{73}$ (iii) $\sqrt{221},178,\sqrt{73}$ (iv) $\sqrt[4]{221},\sqrt{178},\sqrt{73}$

Assignment Key

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