Coordinate Geometry

1- What is the reflection of the point (2, -3.5) in the y-axis?
(A) (–2, 3.5)　　　　(B) (–2, –3.5)
(C) (–3.5, –2)　　　　(D) (3.5, –2)

2- What is the reflection of the point (5, 3) in the line y = –2?
(A) (–9, 3)　　　　(B) (–5, –7)
(C) (–9, –3)　　　　(D) (5, –7)

3- What is the reflection of the point (5, -2) in the line y = -1?
(A) (-7, -2)　　　　(B) (-5, 0)
(C) (5, 0)　　　　(D) (-7, 2)

4- What is the reflection of the point (-4, 3) in the line x = -2?
(A) (-4, -7)　　　　(B) (4, 3)
(C) (0, 3)　　　　(D) (-4, 7)

5- What is the reflection of the point (6, -3) in the line y = 2?
(A) (-2, -3)　　　　(B) (6, 7)
(C) (-6, 7)　　　　(D) (-2, 3)

6 - The co-ordinates of the centroid of a triangle ABC are (1 , -4). What are the co-ordinates of vertex C if co-ordinates of A and B are (3 , -4) and (0 , 5) respectively?
(A) (0 , 13)　　　　(B) (0, 5)
(C) (0, -5)　　　　(D) (0, -13)

7. What are the co-ordinates of the centroid of a triangle, whose vertices are A(1, –5), B(–4, 0) and C(3, –4)?
(A) (0, 6)　　　　(B) (0, -3)
(C) (0, -5)　　　　(D) (0, 5)

8 - In what ratio does the point T(x, 0) divide the segment joining the points S(5, 1) and U(-1, -2)?
(A) 2 : 1　　　　(B) 1 : 2
(C) 3 : 1　　　　(D) 2 : 3

9 - Point P is the midpoint of segment AB. Co-ordinates of P are (3 , 1) and B are (5, -4). What are the co-ordinates of point A?
(A) (-1 , 7)　　　　(B) (1 , -7)
(C) (1 , 6)　　　　(D) (-1 , -7)

10- Point A (2, 1) divides segment BC in the ratio 2:3. Co-ordinates of B are (1, -3) and C are (4, y). What is the value of y?
(A) 8　　　　(B) -7
(C) -8　　　　(D) 7

11 - What are the co-ordinates of the centroid of a triangle, whose vertices are A(1, -5), B(4, 0) and C(-2, 2)?
(A) (1 , -1)　　　　(B) (-1 , 1)
(C) (2 , -2)　　　　(D) (-2 , 2)

12 - In what ratio is the segment joining points (2, 3) and (-2, 1) divided by the Y-axis?
(A) 1 : 2　　　　(B) 1 : 1
(C) 3 : 1　　　　(D) 2 : 3

13 - The co-ordinates of the centroid of a triangle ABC are (2 , 2). What are the co-ordinates of vertex C if co-ordinates of A and B are (7 , -1) and (1 , 2) respectively?
(A) (-2 , 5)　　　　(B) (2 , 5)
(C) (-2 , -5)　　　　(D) (2 , -5)

14 - Point P (-2, 5) is the midpoint of segment AB. Co-ordinates of A are (-5, y) and B are (x, 3). What is the value of x?
(A) 1　　　　(B) -1
(C) 2　　　　(D) -2

15 - The distance between the points (2, 7) and (k, -5) is 13. What is the value of k?
(A) -7　　　　(B) 7
(C) 6　　　　(D) -6

16 - Point A divides segment BC in the ratio 4:1. Co-ordinates of B are (6 , 1) and C are (7/2 , 6). What are the co-ordinates of point A?
(A) (4 , 3) **(B)** (4 , 5)
(C) (2 , 5) **(D)** (3 , 5)

17- Point P is the midpoint of segment AB. Co-ordinates of P are (5, –1) and A are (2, –4). What are the co-ordinates of point B?
(A) (6, 4) **(B)** (8, 2)
(C) (1, –2) **(D)** (–6, –2)

18- What is the distance between the points (3 , 6) and (–2 , –6)?
(A) 15 **(B)** 13
(C) 11 **(D)** 12

19- In what ratio does the point T(x,0) divide the segment joining the points S(–4, –1) and U(1,4)?
(A) 1 : 4 **(B)** 4 : 1
(C) 1 : 2 **(D)** 2 : 1

20- What is the reflection of the point (-3, 2) in the line x = 2?
(A) (-3, -6) **(B)** (-1, 2)
(C) (-3, 6) **(D)** (7 , 2)