EduSahara™ Learning Center Assignment

Grade : Class X, CBSE
Chapter : Coordinate Geometry
Name : Distance Formula

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1. Find the distance between the points $((-1), 4)$ and $(5, 7)$

(i) 15 (ii) $3\sqrt{8}$ (iii) $3\sqrt{3}$ (iv) $3\sqrt{5}$ (v) $3\sqrt[4]{5}$

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

(i) $(3\sqrt{29} + 16 + \sqrt{37})$ (ii) $(3\sqrt{29} + 12 + \sqrt{37})$

(iii) $(3\sqrt{29} + 14 + \sqrt[4]{37})$ (iv) $(3\sqrt{29} + 14 + \sqrt{37})$

(v) $(3\sqrt{29} + 14 + 37)$

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3. Find the lengths of the sides of the triangle formed by the points $(8,(-6))$, $(5, 3)$ and $((-3), 2)$

(i) $3\sqrt{10}$, 65 , $\sqrt{185}$

(ii) $3\sqrt{10}$, $\sqrt{65}$, $\sqrt{185}$

(iii) $3\sqrt[4]{10}$, $\sqrt{65}$, $\sqrt{185}$

(iv) $3\sqrt{10}$, $\sqrt{65}$, $\sqrt{187}$

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4. Distance of the point $(6, 3)$ from x-axis is

(i) 6 (ii) 3 (iii) 9 (iv) (-3)

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5. Distance of the point $(5, 5)$ from y-axis is

(i) 10 (ii) 5 (iii) 0

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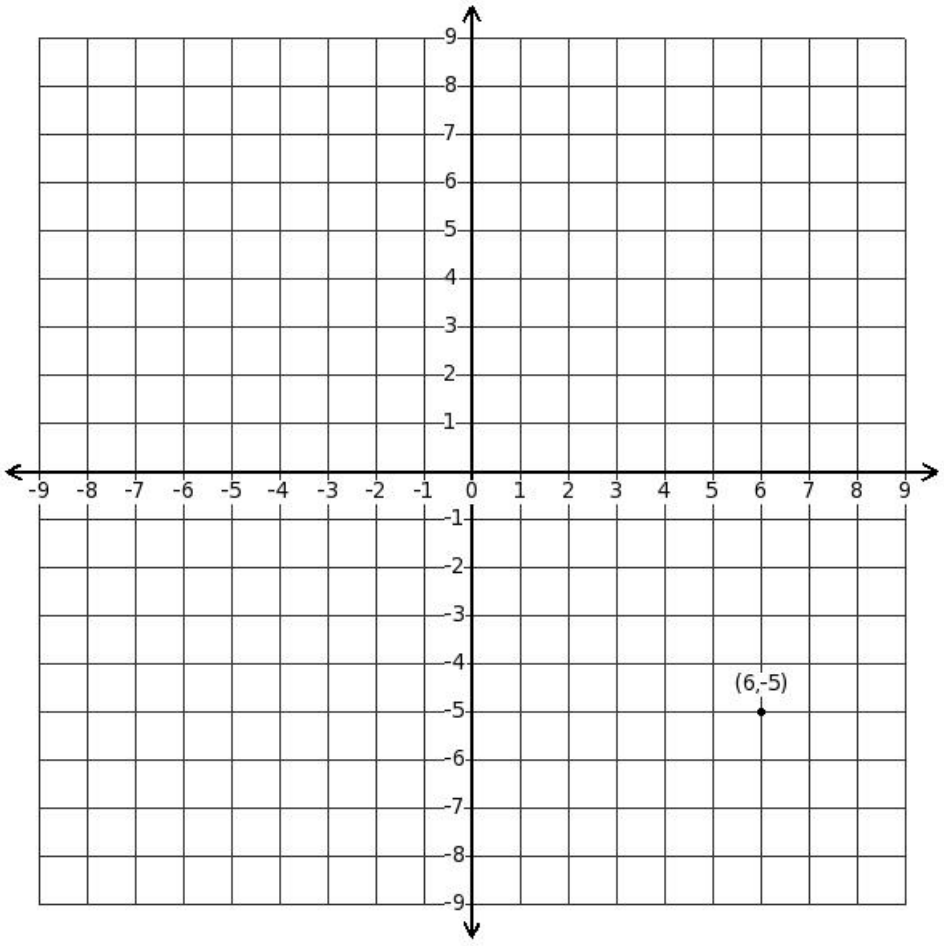
6. Distance of the given point from x-axis is



(i) 11 (ii) -1 (iii) 30 (iv) 6 (v) 5

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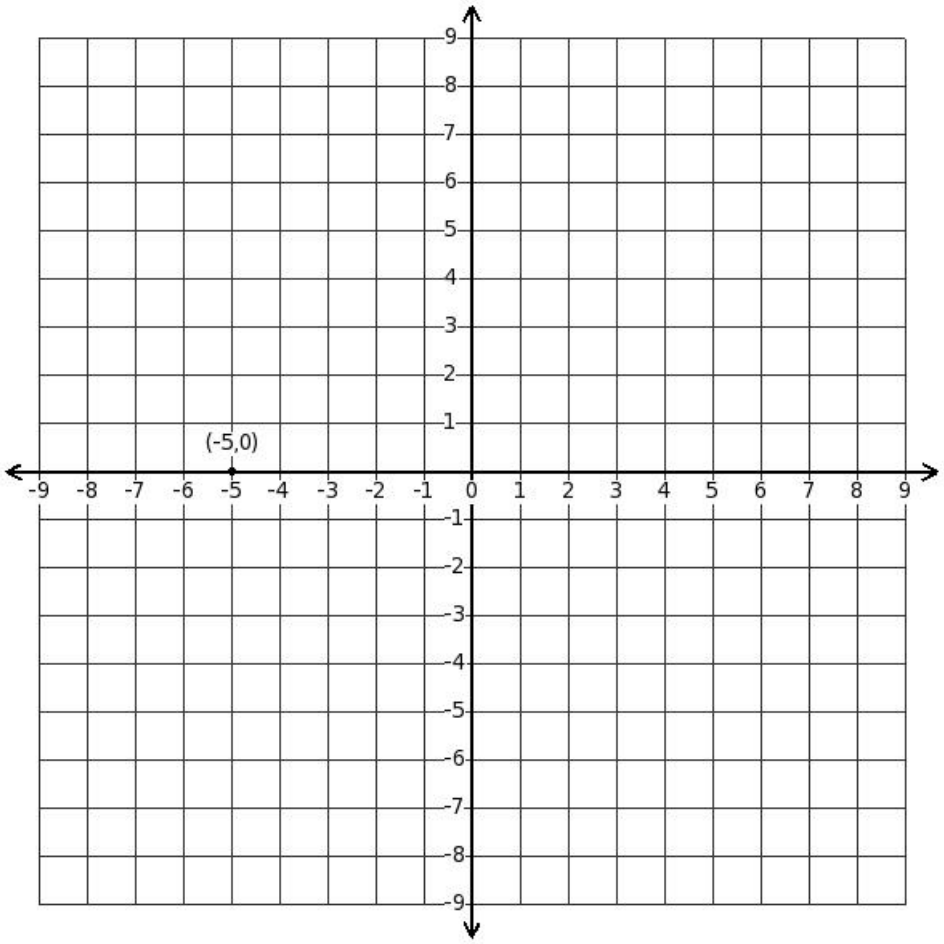
7. Distance of the given point from y-axis is



(i) 0 (ii) 5

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8. Find the distance of the point $((-6), 8)$ from origin

(i) 11 (ii) 9 (iii) 7 (iv) 12 (v) 10

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9. A is a point on x-axis with abscissa 3 and B is a point on y-axis with ordinate 0 .Find the distance between A and B

(i) 3 (ii) 4 (iii) 0 (iv) 6 (v) 2

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10. KM is the straight line of length $2\sqrt{29}$ units. If K has the coordinates $(6,(-4))$ and M has coordinates (k,-8) , find the possible values of k

(i) $(14,(-6))$ (ii) $(18,(-2))$ (iii) $(17,(-5))$ (iv) $(16,(-4))$ (v) $(15,(-3))$

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11. Find the point on x-axis which is equidistant from the points $(6,(-5))$ and $(4,(-2))$

(i) $(\frac{49}{4}, 2)$

(ii) $(\frac{41}{4},0)$

(iii) $\left(\frac{45}{4}, (-1)\right)$

(iv) $\left(\frac{37}{4}, 1\right)$

(v) $\left(\frac{33}{4}, (-2)\right)$

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12. Find the point on y-axis which is equidistant from the points $((-5), (-2))$ and $((-3), 8)$

(i) $\left(1, \frac{6}{5}\right)$

(ii) $\left(0, \frac{11}{5}\right)$

(iii) $\left(2, \frac{21}{5}\right)$

(iv) $\left((-1), \frac{16}{5}\right)$

(v) $\left((-2), \frac{1}{5}\right)$

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13. Find the points on x-axis, which are at a distance of 8 units from the point $((-6), 8)$

(i) $((-8), (-2))$ (ii) $((-5), (-1))$

(iii) $((-6), 0)$ (iv) $((-4), 2)$

(v) $((-7), 1)$

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14. Find the points on y-axis, which are at a distance of 9 units from the point $(8, (-5))$

(i) $((-2), (-7+\sqrt{17})), (0, (-5-\sqrt{17}))$ (ii) $(1, (-6+\sqrt{17})), (0, (-5-\sqrt{17}))$

(iii) $(0, (-5+\sqrt{17})), (0, (-5-\sqrt{17}))$ (iv) $(0, (-5+\sqrt{17})), ((-1), (-4-\sqrt{17}))$

(v) $(2, (-3+\sqrt{17})), (0, (-5-\sqrt{17}))$

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15. Find the lengths of the medians of a triangle whose vertices are $((-8), (-1))$, $(7, (-6))$ and $(8, 8)$

(i) $\frac{5}{2}\sqrt{10}$, $\frac{1}{2}\sqrt{197}$, $\frac{1}{2}\sqrt{197}$

(ii) $\frac{1}{2}\sqrt{977}$, $\frac{1}{2}\sqrt{557}$, $\frac{1}{2}\sqrt{818}$

(iii) $\frac{1}{2}\sqrt{197}$, $\frac{1}{2}\sqrt{337}$, $\frac{5}{2}\sqrt{10}$

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16. If point P $(x,4)$ is equidistant from the points $(6,1)$ and $((-2),4)$, find x

(i) $\frac{43}{16}$ (ii) $\frac{41}{16}$ (iii) $\frac{39}{16}$ (iv) $\frac{5}{2}$ (v) $\frac{37}{14}$

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17. If point P $(\frac{13}{4},6)$ is equidistant from the points $(a,-1)$ and $((-1),0)$, find a

(i) 0 (ii) 2 (iii) 3 (iv) -2 (v) 1

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18. Find the relation between x and y such that the point P (x,y) is equidistant from points $((-6),7)$ and $(5,8)$

(i) $(22x+5y-4)=0$

(ii) $(21x+2y-4)=0$

(iii) $(-13x-4y-50)=0$

(iv) $(-13x-6y-50)=0$

(v) $(22x+2y-4)=0$

Assignment Key

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