

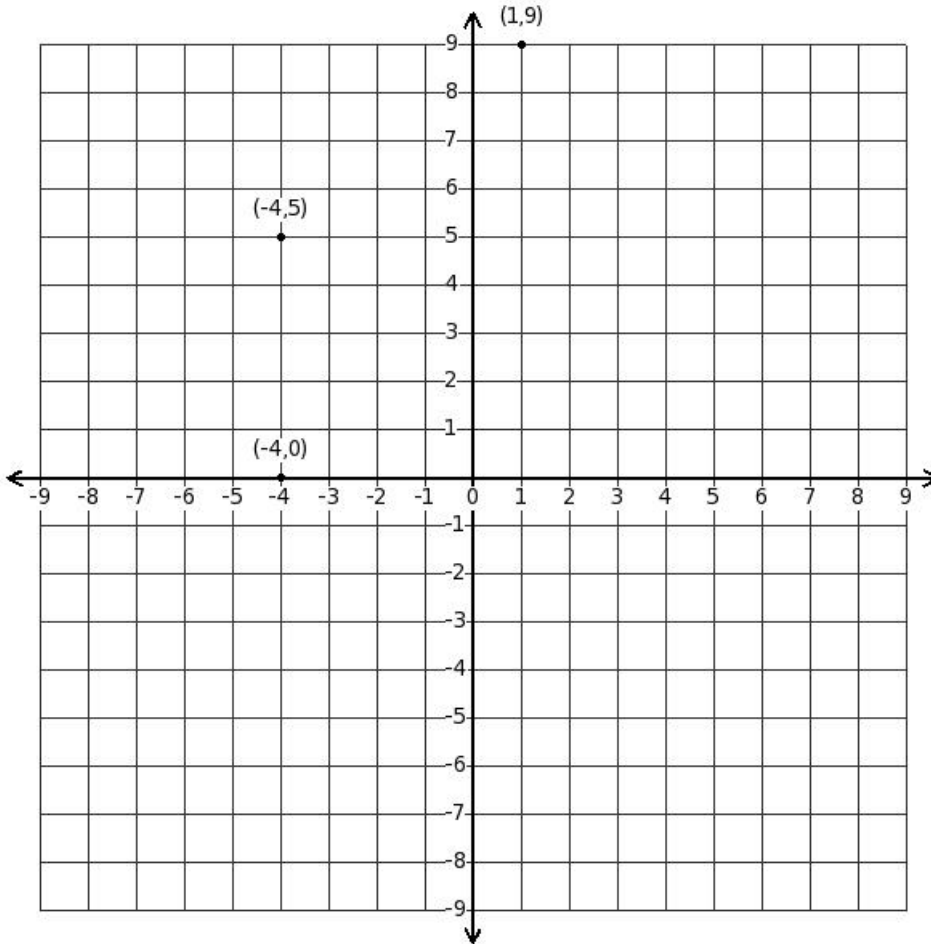
EduSahara™ Learning Center Assignment

Grade : Class X, ICSE

Chapter : Reflection

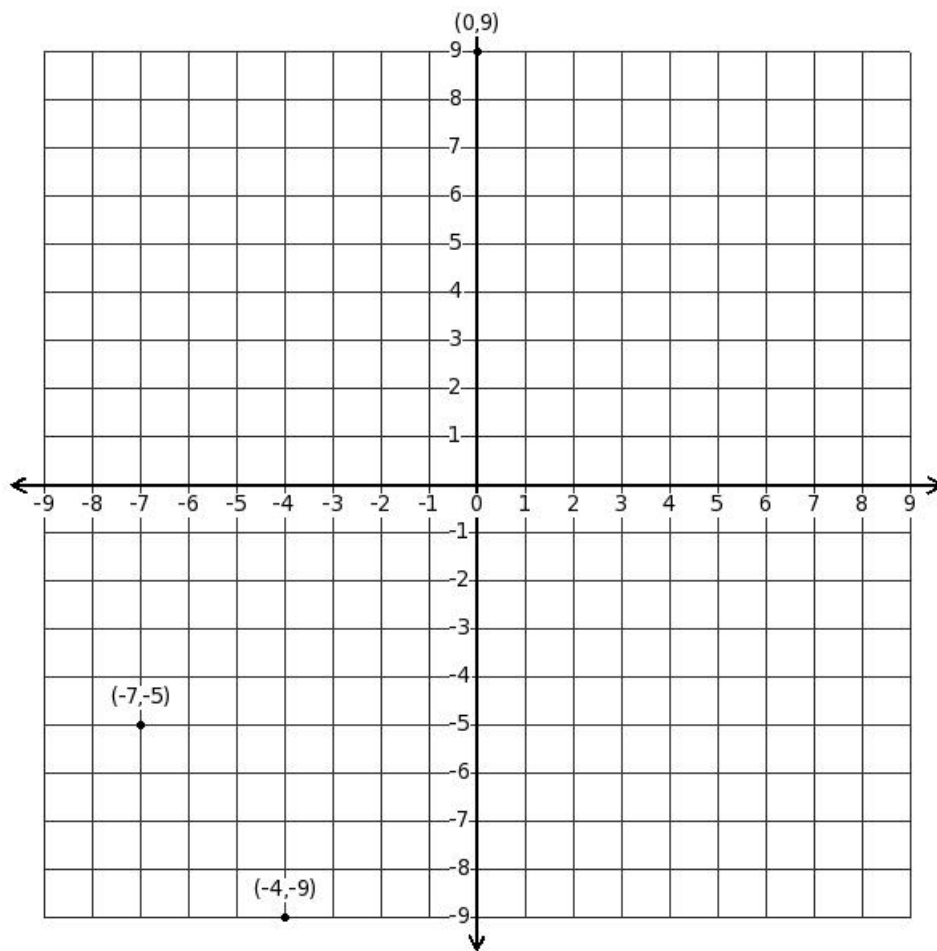
Name : Reflection

1. Write down the coordinates when reflected in the x-axis



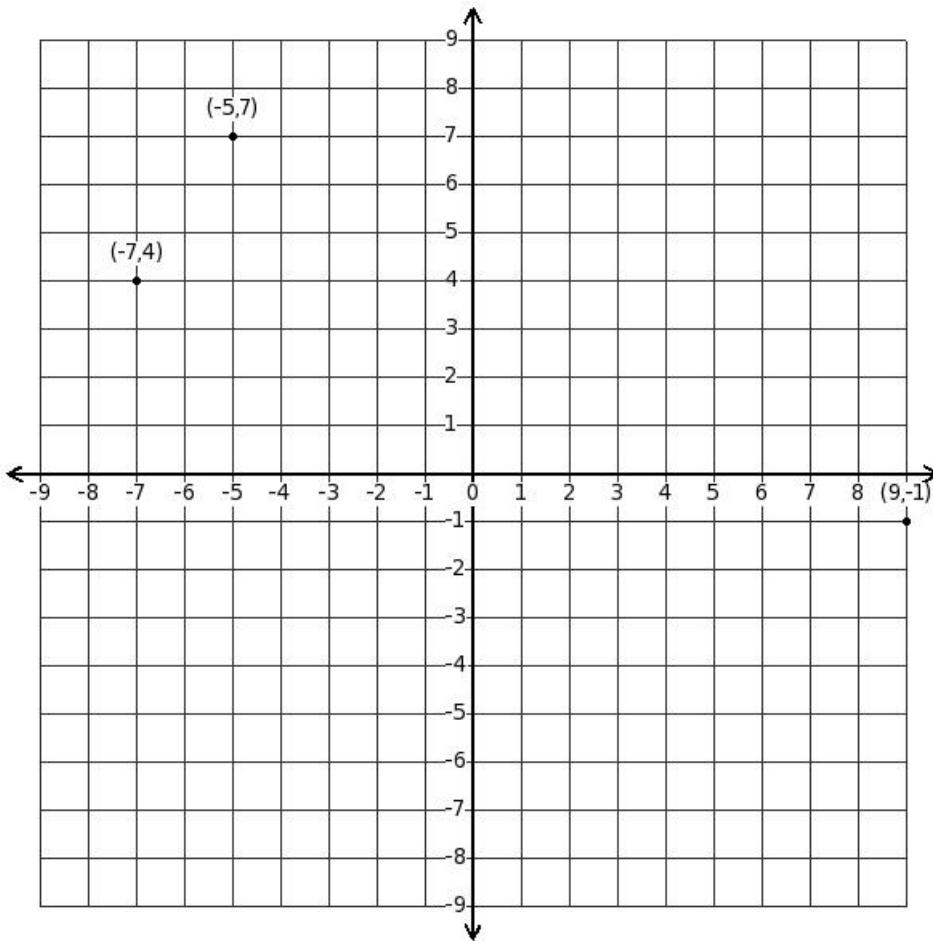
- (i) $(1, (-9)), ((-4), (-5)), ((-3), (-1))$
- (ii) $(1, (-9)), ((-4), (-5)), ((-6), (-2))$
- (iii) $(1, (-9)), ((-4), (-5)), ((-4), 0)$
- (iv) $(1, (-9)), ((-2), (-3)), ((-4), 0)$
- (v) $(0, (-8)), ((-4), (-5)), ((-4), 0)$

2. Write down the coordinates when reflected in the y-axis



- (i) $(-7, -5), (-4, -9), (0, 9)$
- (ii) $(-7, -5), (-4, -9), (1, 8)$
- (iii) $(-7, -5), (-6, -7), (0, 9)$
- (iv) $(-6, -4), (-4, -9), (0, 9)$
- (v) $(-7, -5), (-4, -9), (-2, 7)$

3. Write down the coordinates when reflected in the origin



- (i) $(4, -6), (-9, 1), (7, -4)$
- (ii) $(5, -7), (-9, 1), (8, -5)$
- (iii) $(5, -7), (-9, 1), (5, -6)$
- (iv) $(5, -7), (-9, 1), (7, -4)$
- (v) $(5, -7), (-7, 3), (7, -4)$

Write down the coordinates when reflected in the x-axis

4. $((-1), 3), (4, 1), (0, 9)$
- (i) $((-1), (-3)), (4, (-1)), (1, (-10))$
 - (ii) $((-2), (-2)), (4, (-1)), (0, (-9))$
 - (iii) $((-1), (-3)), (6, 1), (0, (-9))$
 - (iv) $((-1), (-3)), (4, (-1)), ((-2), (-11))$
 - (v) $((-1), (-3)), (4, (-1)), (0, (-9))$

Write down the coordinates when reflected in the y-axis

5. $(3, (-2)), (1, (-7)), (4, (-6))$
- (i) $((-4), (-1)), ((-1), (-7)), ((-4), (-6))$

(ii) $((-3), (-2)), (1, (-5)), ((-4), (-6))$

(iii) $((-3), (-2)), ((-1), (-7)), ((-6), (-8))$

(iv) $((-3), (-2)), ((-1), (-7)), ((-4), (-6))$

(v) $((-3), (-2)), ((-1), (-7)), ((-3), (-7))$

Write down the coordinates when reflected in the origin

6. $((-7), 8), (1, (-7)), ((-1), (-1))$

(i) $(7, (-8)), ((-1), 7), ((-1), (-1))$

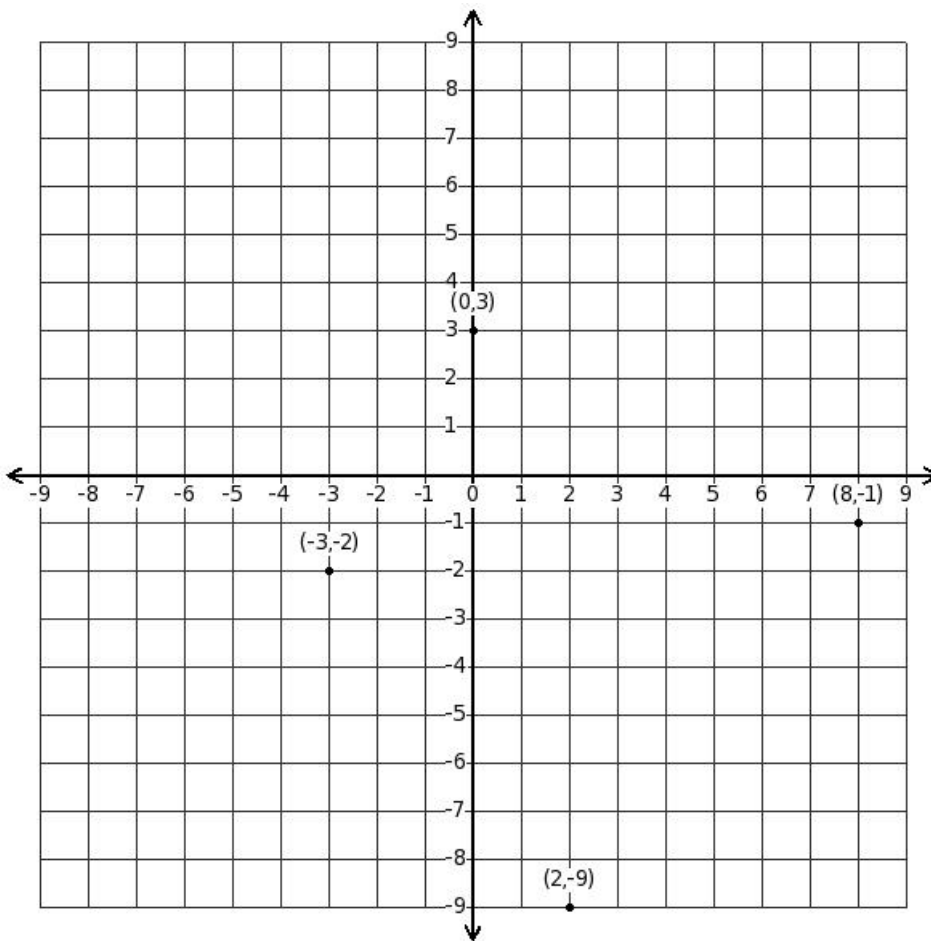
(ii) $(7, (-8)), (1, 9), (1, 1)$

(iii) $(7, (-8)), ((-1), 7), (2, 0)$

(iv) $(7, (-8)), ((-1), 7), (1, 1)$

(v) $(6, (-7)), ((-1), 7), (1, 1)$

7. Write down the coordinates when reflected in the x-axis



(i) $(2, 9), (0, (-3)), ((-2), 1), (8, 1)$

(ii) $(2, 9), (0, (-3)), ((-3), 2), (7, 2)$

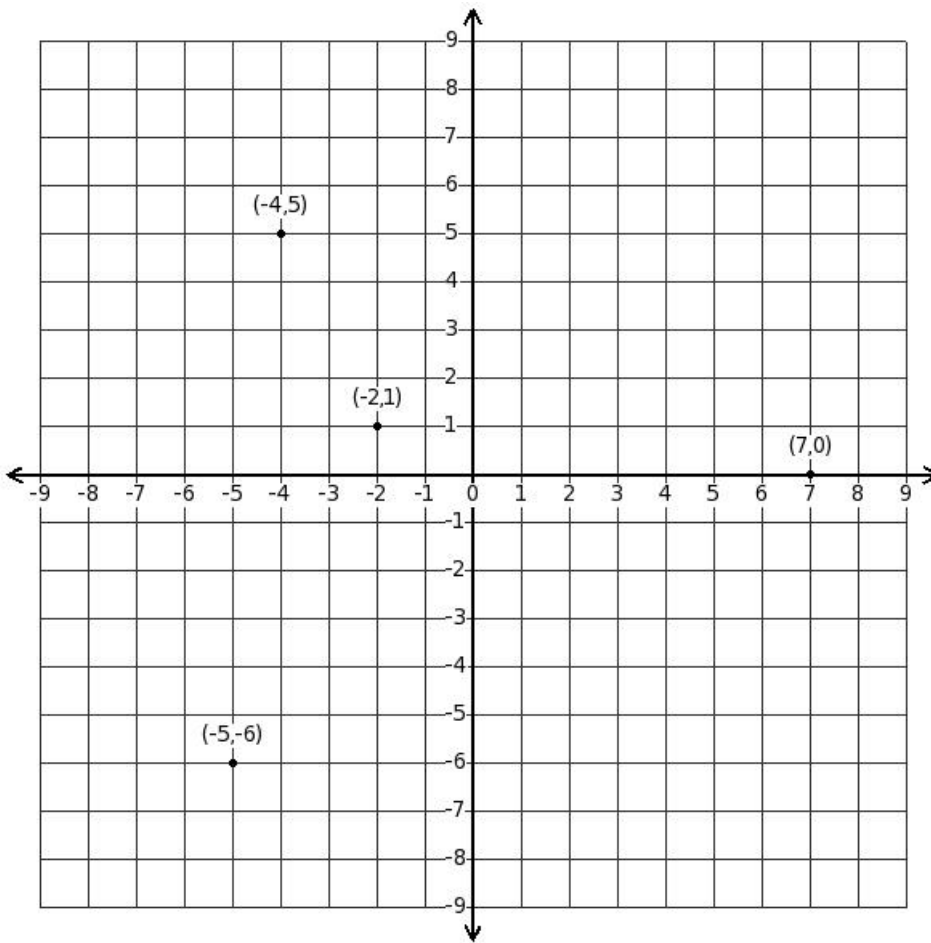
(iii) $(2, 9), (0, (-3)), ((-3), 2), (8, 1)$

$$\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \end{pmatrix}$$

(iv) $(4, 11), (0, -3), (-3, 2), (8, 1)$

(v) $(2, 9), (0, -3), (-5, 0), (8, 1)$

8. Write down the coordinates when reflected in the y-axis



(i) $(5, -6), (2, 1), (4, 5), (-7, 0)$

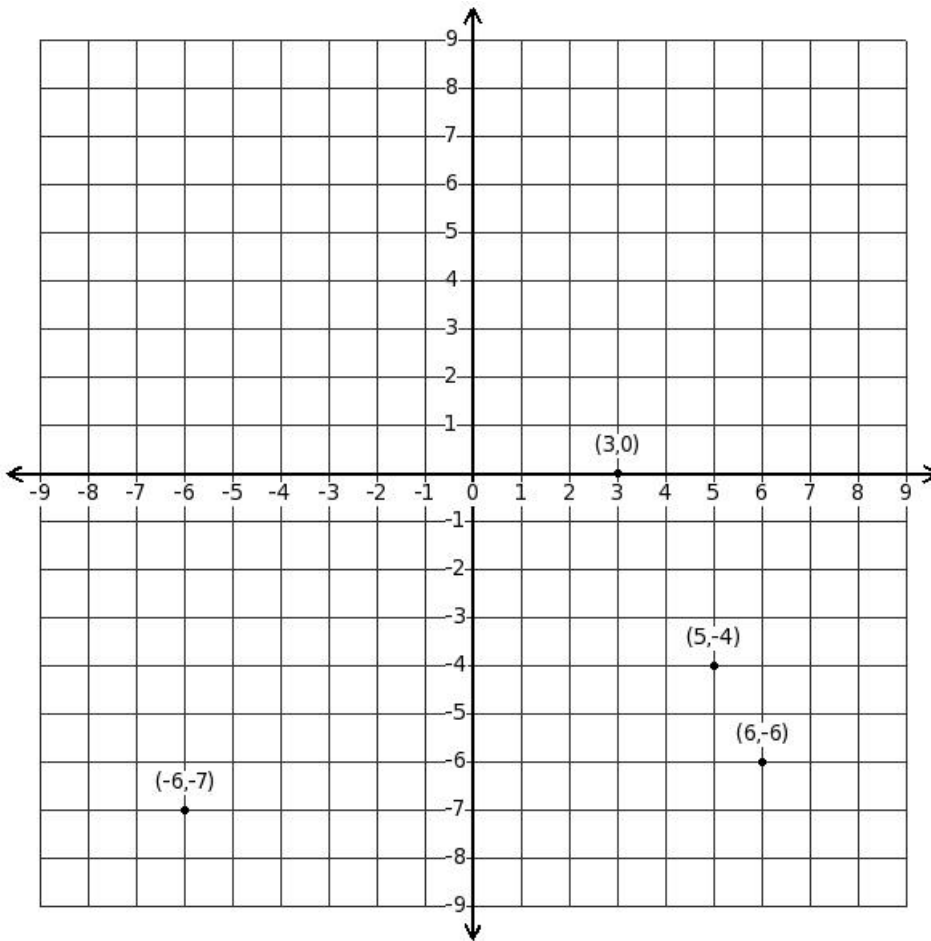
(ii) $(5, -6), (2, 1), (5, 4), (-7, 0)$

(iii) $(7, -4), (2, 1), (4, 5), (-7, 0)$

(iv) $(5, -6), (2, 1), (2, 3), (-7, 0)$

(v) $(5, -6), (2, 1), (4, 5), (-8, 1)$

9. Write down the coordinates when reflected in the origin



- (i) $((-6), 6), (6, 7), ((-5), 4), ((-4), 1)$
- (ii) $((-6), 6), (6, 7), ((-7), 2), ((-3), 0)$
- (iii) $((-6), 6), (6, 7), ((-4), 3), ((-3), 0)$
- (iv) $((-4), 8), (6, 7), ((-5), 4), ((-3), 0)$
- (v) $((-6), 6), (6, 7), ((-5), 4), ((-3), 0)$

Write down the coordinates when reflected in the x-axis

10. $(0, (-8)), ((-4), (-7)), (0, 4), (0, 3)$
- (i) $(0, 8), ((-4), 7), (0, (-4)), (0, (-3))$
 - (ii) $(2, 10), ((-4), 7), (0, (-4)), (0, (-3))$
 - (iii) $(0, 8), ((-4), 7), (0, (-4)), ((-1), (-2))$
 - (iv) $(0, 8), ((-4), 7), ((-2), (-6)), (0, (-3))$
 - (v) $(0, 8), ((-4), 7), (1, (-5)), (0, (-3))$

Write down the coordinates when reflected in the y-axis

11. $(6, 5), (5, (-5)), ((-2), 0), (5, 5)$
- (i) $((-6), 5), ((-5), (-5)), (0, (-2)), ((-5), 5)$

- (ii) $((-6), 5), ((-5), (-5)), (2, 0), ((-6), 6)$
- (iii) $((-6), 5), ((-5), (-5)), (3, (-1)), ((-5), 5)$
- (iv) $((-4), 7), ((-5), (-5)), (2, 0), ((-5), 5)$
- (v) $((-6), 5), ((-5), (-5)), (2, 0), ((-5), 5)$

Write down the coordinates when reflected in the origin

12. $((-7), (-1)), (0, 8), (7, 2), ((-3), 5)$
- (i) $(7, 1), (0, (-8)), ((-6), (-3)), (3, (-5))$
- (ii) $(7, 1), (0, (-8)), ((-7), (-2)), (3, (-5))$
- (iii) $(9, 3), (0, (-8)), ((-7), (-2)), (3, (-5))$
- (iv) $(7, 1), (0, (-8)), ((-7), (-2)), (2, (-4))$
- (v) $(7, 1), (0, (-8)), ((-9), (-4)), (3, (-5))$

13. Which of the following points is invariant under reflection in x-axis

- (i) $((-7), 6)$ (ii) $((-5), (-8))$ (iii) $(8, (-6))$ (iv) $(1, 9)$ (v) $(7, 0)$

14. Which of the following points is invariant under reflection in y-axis

- (i) $(3, (-5))$ (ii) $((-6), 8)$ (iii) $((-5), (-5))$ (iv) $(0, 6)$ (v) $(5, 1)$

Find the image of the point A $(0, (-1))$

15. under the reflection of a point P $(\frac{5}{2}, \frac{1}{2})$
- (i) $(5, 2)$ (ii) $(4, 3)$ (iii) $(3, 0)$ (iv) $(7, 4)$ (v) $(6, 1)$

Find the coordinates of the point $((-2), (-2))$

16. when reflected in x-axis followed by reflection in y-axis
- (i) $((-2), (-2))$ (ii) $(2, (-2))$ (iii) $((-2), 2)$ (iv) $(2, 2)$

Find the coordinates of the point $(8, 6)$

17. when reflected in x-axis followed by reflection in origin
- (i) $(6, (-8))$ (ii) $((-8), 6)$ (iii) $(8, (-6))$ (iv) $((-8), (-6))$ (v) $(8, 6)$

Find the coordinates of the point $(2, 6)$

18. when reflected in y-axis and followed by reflection in x-axis

- (i) $(1 - 2, 6)$ (ii) $(2, 1 - 6)$ (iii) $(1 - 6, 1 - 2)$ (iv) $(1 - 2, 1 - 6)$ (v) $(2, 6)$
-

19. Find the coordinates of the point $(-4, -3)$
when reflected in y-axis followed by reflection in origin

- (i) $(4, 3)$ (ii) $(-4, -3)$ (iii) $(3, -4)$ (iv) $(-4, 3)$ (v) $(4, -3)$
-

20. Find the coordinates of the point $(2, 7)$
when reflected in origin followed by reflection in x-axis

- (i) $(2, -7)$ (ii) $(2, 7)$ (iii) $(7, -2)$ (iv) $(-2, 7)$ (v) $(-2, -7)$
-

21. Find the coordinates of the point $(6, 3)$
when reflected in origin followed by reflection in y-axis

- (i) $(-6, -3)$ (ii) $(6, 3)$ (iii) $(-3, 6)$ (iv) $(6, -3)$ (v) $(-6, 3)$
-

22. Find the image of the point $(-4, 0)$ when reflected in x-axis

- (i) $(0, -4)$ (ii) $(-3, 0)$ (iii) $(4, 0)$ (iv) $(-4, 0)$
-

23. Find the image of the point $(-3, 0)$ when reflected in y-axis

- (i) $(0, 3)$ (ii) $(4, 0)$ (iii) $(3, 0)$ (iv) $(-3, 0)$
-

24. Find the image of the point $(3, -3)$ when reflected in the origin

- (i) $(3, -3)$ (ii) $(-3, -3)$ (iii) $(3, 3)$ (iv) $(-3, 3)$ (v) $(-2, 3)$
-

25. Find the coordinates of the reflection
of the point $(8, 7)$ in line $(-y - 7) = 0$

- (i) $(10, -19)$ (ii) $(8, -21)$ (iii) $(9, -22)$
(iv) $(7, -20)$ (v) $(6, -23)$
-

26. Find the coordinates of the reflection
of the point $(8, -4)$ in line $(10x + 30) = 0$

- (i) $(-13, -5)$ (ii) $(-14, -4)$ (iii) $(-12, -2)$
(iv) $(-16, -6)$ (v) $(-15, -3)$
-

Assignment Key

- 1) (iii)
- 2) (i)
- 3) (iv)
- 4) (v)
- 5) (iv)
- 6) (iv)
- 7) (iii)
- 8) (i)
- 9) (v)
- 10) (i)
- 11) (v)
- 12) (ii)
- 13) (v)
- 14) (iv)
- 15) (i)
- 16) (iv)
- 17) (ii)
- 18) (iv)
- 19) (iv)
- 20) (iv)
- 21) (iv)
- 22) (iv)
- 23) (iii)
- 24) (iv)
- 25) (ii)
- 26) (ii)