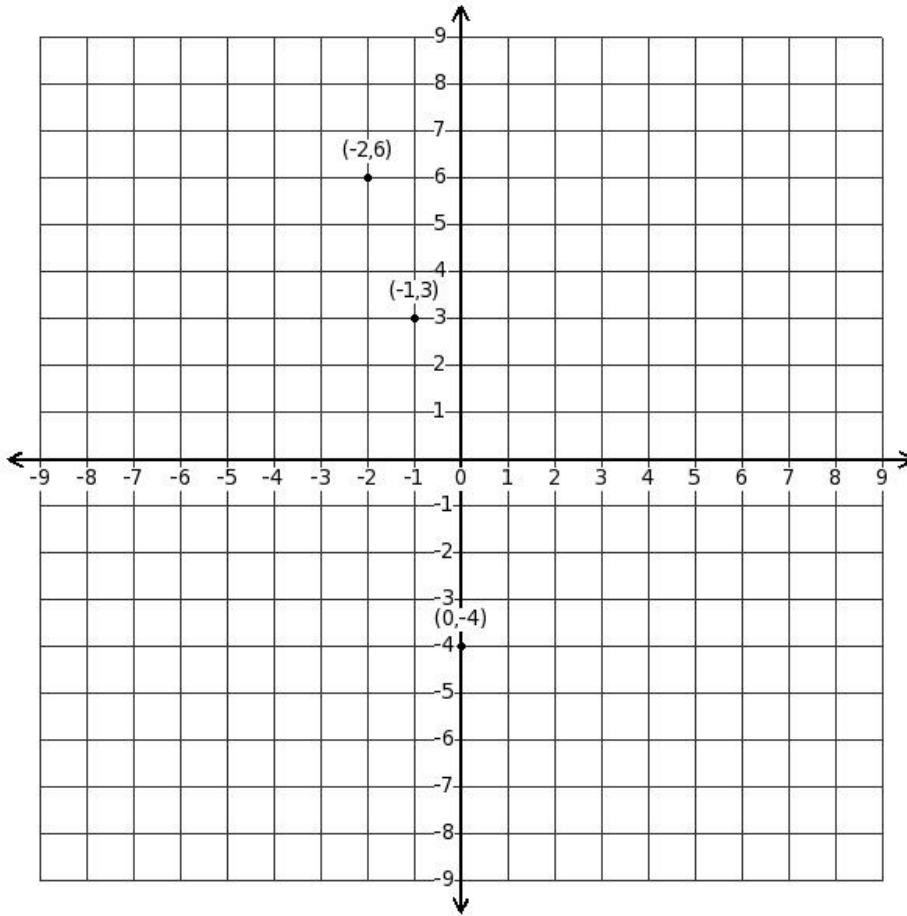


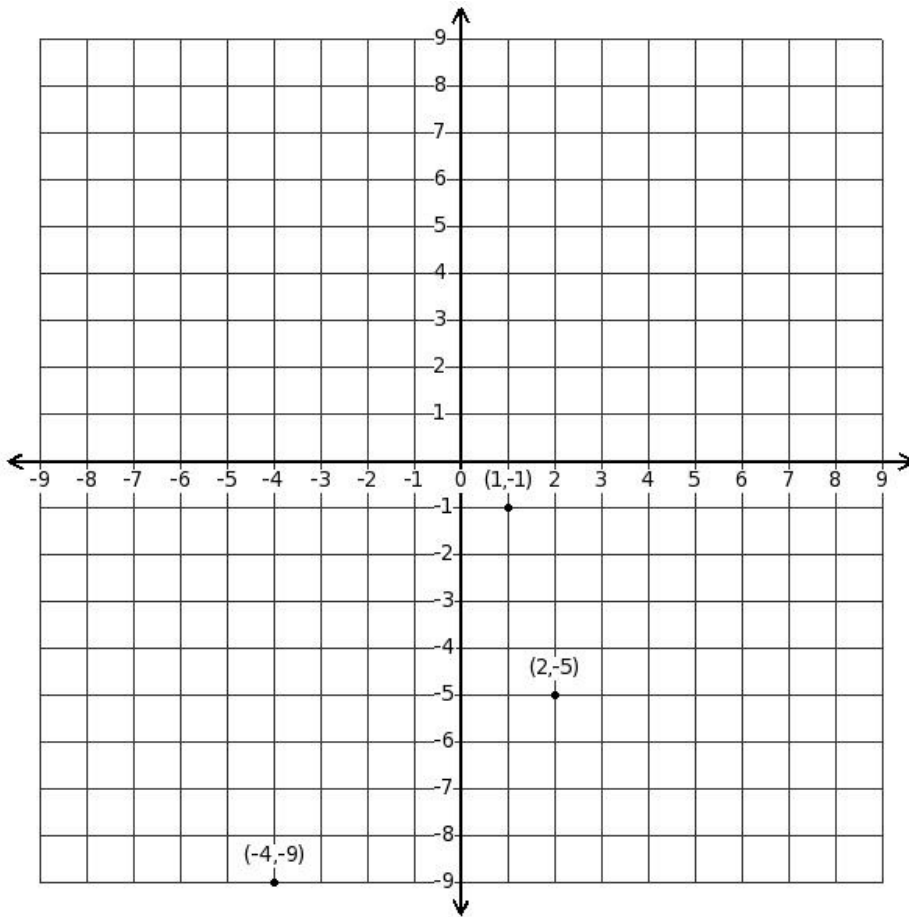


1. Write down the coordinates when reflected in the x-axis



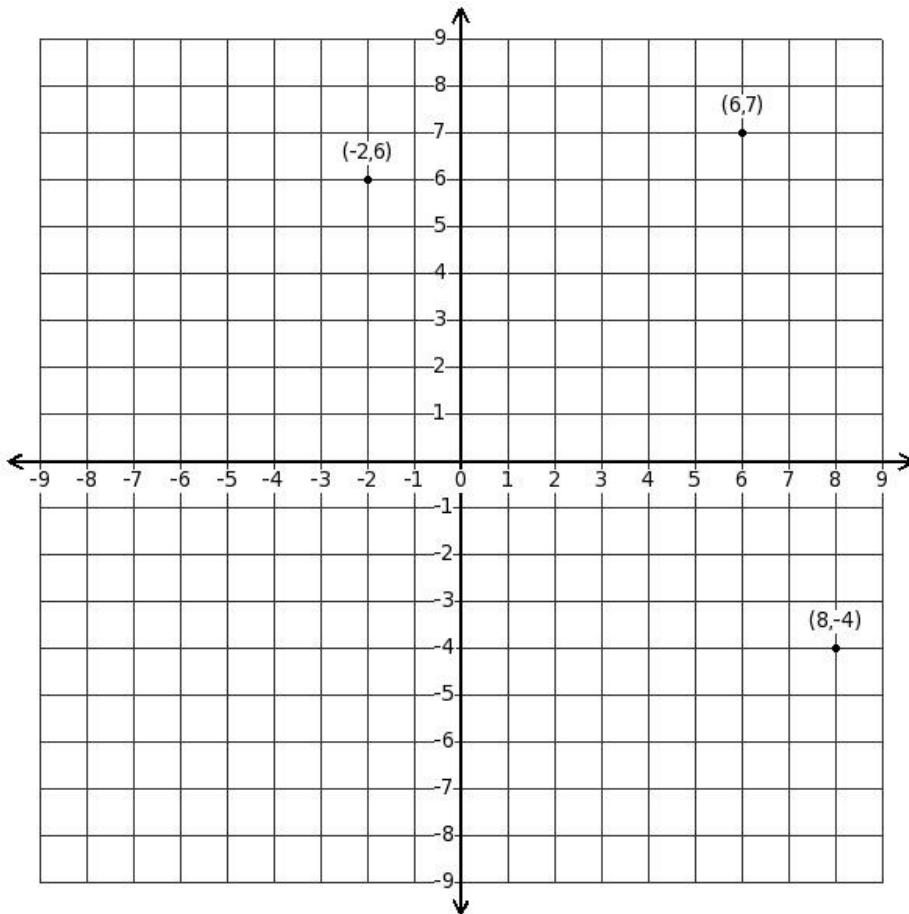
- (i)  $((-1), (-3)), (0, 4), ((-4), (-8))$  (ii)  $((-2), (-2)), (0, 4), ((-2), (-6))$  (iii)  $((-1), (-3)), (0, 4), ((-1), (-7))$   
(iv)  $((-1), (-3)), (2, 6), ((-2), (-6))$  (v)  $((-1), (-3)), (0, 4), ((-2), (-6))$

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



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

3. Write down the coordinates when reflected in the origin



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

4. Write down the coordinates when reflected in the x-axis  $(2, (-7)), ((-9), 9), (0, (-6))$

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

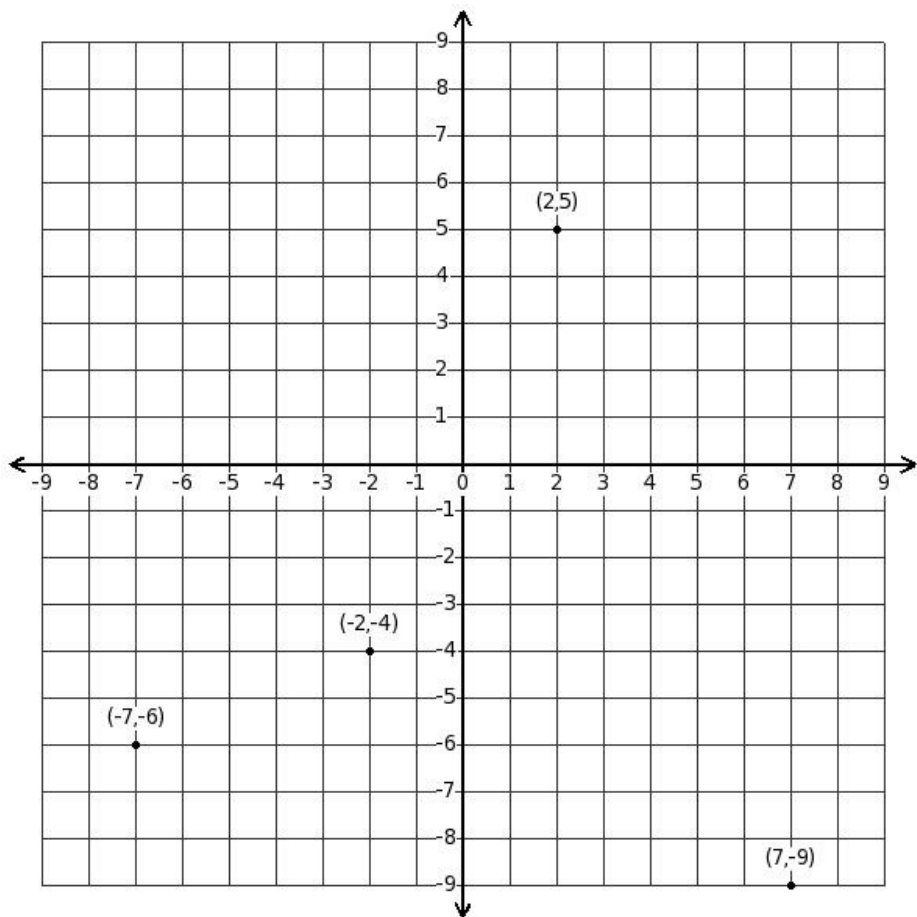
5. Write down the coordinates when reflected in the y-axis  $(2, (-6)), (8, 9), ((-6), (-6))$

- (i)  $((-2), (-6)), ((-6), 11), (6, (-6))$  (ii)  $((-3), (-5)), ((-8), 9), (6, (-6))$  (iii)  $((-2), (-6)), ((-8), 9), (4, (-8))$   
 (iv)  $((-2), (-6)), ((-8), 9), (7, (-7))$  (v)  $((-2), (-6)), ((-8), 9), (6, (-6))$

6. Write down the coordinates when reflected in the origin  $((-5), (-1)), (7, 4), (5, (-8))$

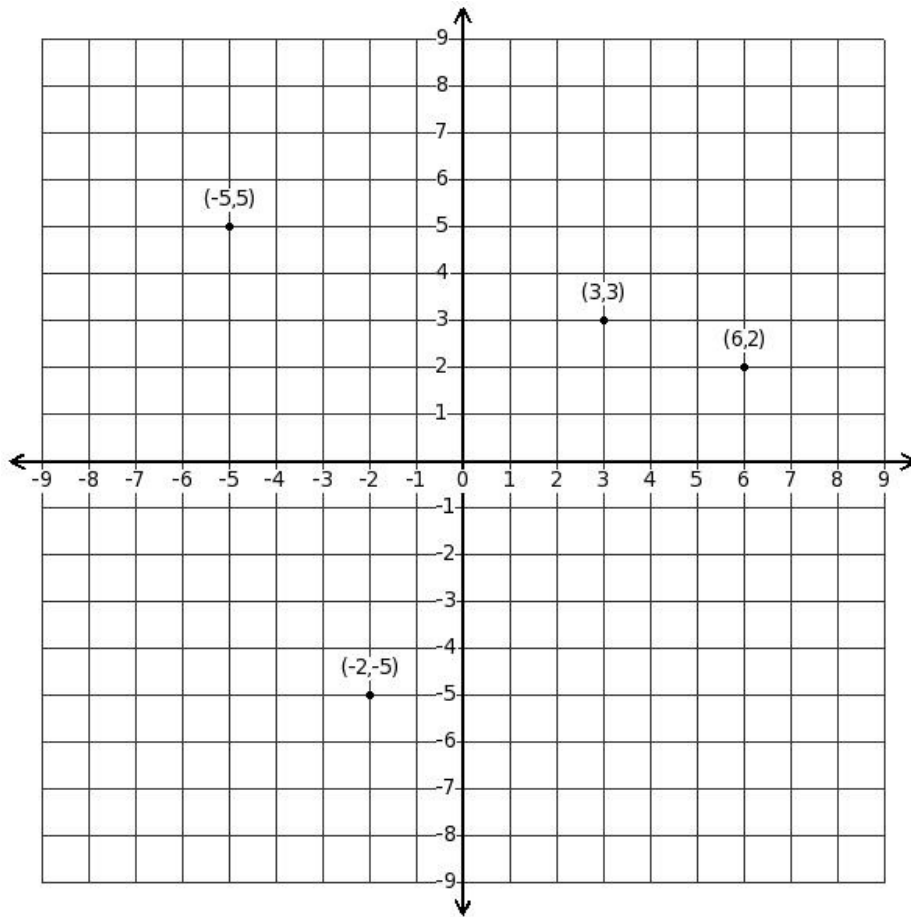
- (i)  $(5, 1), ((-7), (-4)), ((-4), 7)$  (ii)  $(5, 1), ((-7), (-4)), ((-7), 6)$  (iii)  $(4, 2), ((-7), (-4)), ((-5), 8)$   
 (iv)  $(5, 1), ((-7), (-4)), ((-5), 8)$  (v)  $(5, 1), ((-5), (-2)), ((-5), 8)$

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



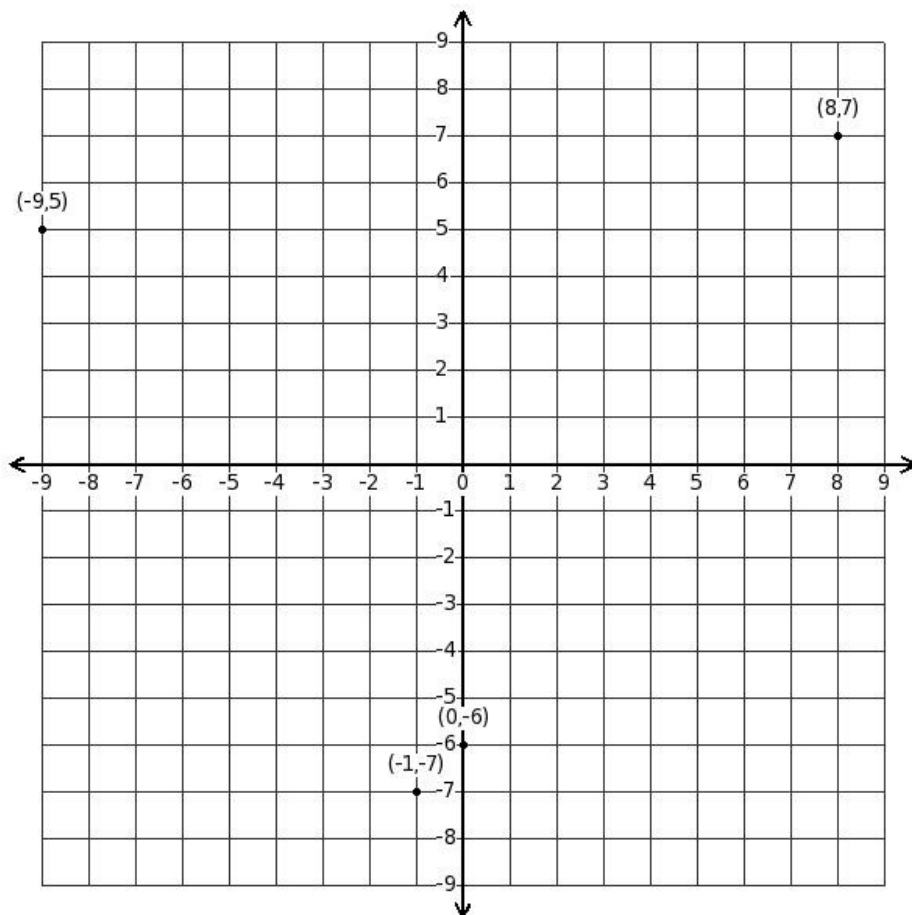
- (i)  $((-2), 4), ((-7), 6), (3, (-6)), (7, 9)$  (ii)  $(0, 6), ((-7), 6), (2, (-5)), (7, 9)$   
(iii)  $((-2), 4), ((-7), 6), (2, (-5)), (6, 10)$  (iv)  $((-2), 4), ((-7), 6), (2, (-5)), (7, 9)$   
(v)  $((-2), 4), ((-7), 6), (0, (-7)), (7, 9)$

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



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

9. Write down the coordinates when reflected in the origin



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

10. Write down the coordinates when reflected in the x-axis  $(3, (-4)), ((-7), 7), ((-9), (-2)), ((-8), 3)$

- (i)  $(3, 4), ((-7), (-7)), ((-11), 0), ((-8), (-3))$  (ii)  $(3, 4), ((-7), (-7)), ((-9), 2), ((-9), (-2))$   
 (iii)  $(3, 4), ((-7), (-7)), ((-9), 2), ((-8), (-3))$  (iv)  $(5, 6), ((-7), (-7)), ((-9), 2), ((-8), (-3))$   
 (v)  $(3, 4), ((-7), (-7)), ((-8), 1), ((-8), (-3))$

11. Write down the coordinates when reflected in the y-axis  $(3, 8), ((-3), (-6)), (8, (-6)), (8, (-3))$

- (i)  $((-1), 10), (3, (-6)), ((-8), (-6)), ((-8), (-3))$  (ii)  $((-3), 8), (3, (-6)), ((-7), (-7)), ((-8), (-3))$   
 (iii)  $((-3), 8), (3, (-6)), ((-8), (-6)), ((-8), (-3))$  (iv)  $((-3), 8), (3, (-6)), ((-8), (-6)), ((-9), (-2))$   
 (v)  $((-3), 8), (3, (-6)), ((-10), (-8)), ((-8), (-3))$

12. Write down the coordinates when reflected in the origin  $(0, 6), (0, (-6)), ((-8), 0), (7, 8)$

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

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

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

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

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

15. Find the image of the point  $A(-4, 2)$  under the reflection of a point  $P(-4, 3)$   
(i)  $(-4, 4)$  (ii)  $(-6, 2)$  (iii)  $(-2, 6)$  (iv)  $(-5, 5)$  (v)  $(-3, 3)$
16. Find the coordinates of the point  $(-8, 5)$  when reflected in x-axis followed by reflection in y-axis  
(i)  $(-8, 5)$  (ii)  $(-8, -5)$  (iii)  $(8, 5)$  (iv)  $(-5, 8)$  (v)  $(8, -5)$
17. Find the coordinates of the point  $(8, 2)$  when reflected in x-axis followed by reflection in origin  
(i)  $(-8, -2)$  (ii)  $(8, 2)$  (iii)  $(-8, 2)$  (iv)  $(2, -8)$  (v)  $(8, -2)$
18. Find the coordinates of the point  $(-8, 4)$  when reflected in y-axis and followed by reflection in x-axis  
(i)  $(8, 4)$  (ii)  $(-4, 8)$  (iii)  $(-8, 4)$  (iv)  $(-8, -4)$  (v)  $(8, -4)$
19. Find the coordinates of the point  $(-4, 4)$  when reflected in y-axis followed by reflection in origin  
(i)  $(-4, -4)$  (ii)  $(4, 4)$  (iii)  $(4, -4)$  (iv)  $(-4, 4)$
20. Find the coordinates of the point  $(8, -1)$  when reflected in origin followed by reflection in x-axis  
(i)  $(-8, -1)$  (ii)  $(8, -1)$  (iii)  $(8, 1)$  (iv)  $(-8, 1)$  (v)  $(-1, -8)$
21. Find the coordinates of the point  $(3, 2)$  when reflected in origin followed by reflection in y-axis  
(i)  $(3, -2)$  (ii)  $(-3, -2)$  (iii)  $(3, 2)$  (iv)  $(-3, 2)$  (v)  $(-2, 3)$
22. Find the image of the point  $(-1, -5)$  when reflected in x-axis  
(i)  $(0, 5)$  (ii)  $(1, -5)$  (iii)  $(5, -1)$  (iv)  $(1, 5)$  (v)  $(-1, 5)$
23. Find the image of the point  $(-7, 2)$  when reflected in y-axis  
(i)  $(-7, -2)$  (ii)  $(2, 7)$  (iii)  $(7, 2)$  (iv)  $(7, -2)$  (v)  $(8, 2)$
24. Find the image of the point  $(-2, 3)$  when reflected in the origin  
(i)  $(3, -3)$  (ii)  $(-2, -3)$  (iii)  $(2, -3)$  (iv)  $(-3, 2)$  (v)  $(2, 3)$
25. Find the coordinates of the reflection of the point  $(4, 2)$  in line  $(-7y + 35) = 0$   
(i)  $(4, 8)$  (ii)  $(5, 7)$  (iii)  $(2, 6)$  (iv)  $(6, 10)$  (v)  $(3, 9)$
26. Find the coordinates of the reflection of the point  $(-4, 2)$  in line  $(-x - 5) = 0$   
(i)  $(-8, 0)$  (ii)  $(-4, 4)$  (iii)  $(-7, 3)$  (iv)  $(-5, 1)$  (v)  $(-6, 2)$

## Assignment Key

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