EduSahara™ Learning Center Assignment

Grade : Class VIII, ICSE
Chapter : Symmetry, Reflection and Rotation
Name : Reflection Concepts
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1. Find the image of the point $(0,\ 3)$ when reflected in x-axis

   (i) $(1, (-3))$ (ii) $(0,\ 3)$ (iii) $(0, (-3))$ (iv) $((-3), 0)$

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2. Find the image of the point $((-5), (-7))$ when reflected in y-axis

   (i) $(6, (-7))$ (ii) $((-7),\ 5)$ (iii) $(5, (-7))$ (iv) $(5,\ 7)$ (v) $((-5),\ 7)$

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3. Find the image of the point $(6, (-1))$ when reflected in the origin

   (i) $((-5),\ 1)$ (ii) $((-6),\ 1)$ (iii) $(1, (-6))$ (iv) $((-6), (-1))$ (v) $(6,\ 1)$

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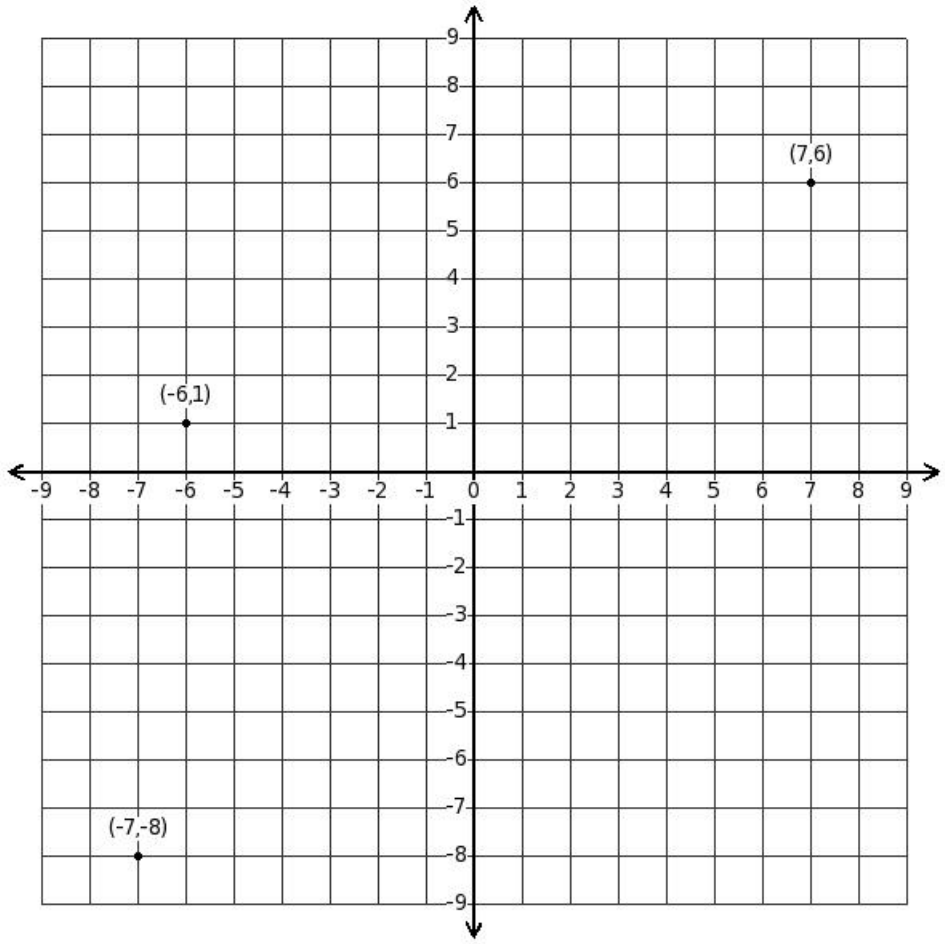
4. Write down the coordinates when reflected in the x-axis



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

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

(iii) $(7,(-6)),((-4),1),((-7),8)$

(iv) $(6,(-5)),((-6),(-1)),((-7),8)$

(v) $(7,(-6)),((-6),(-1)),((-9),6)$

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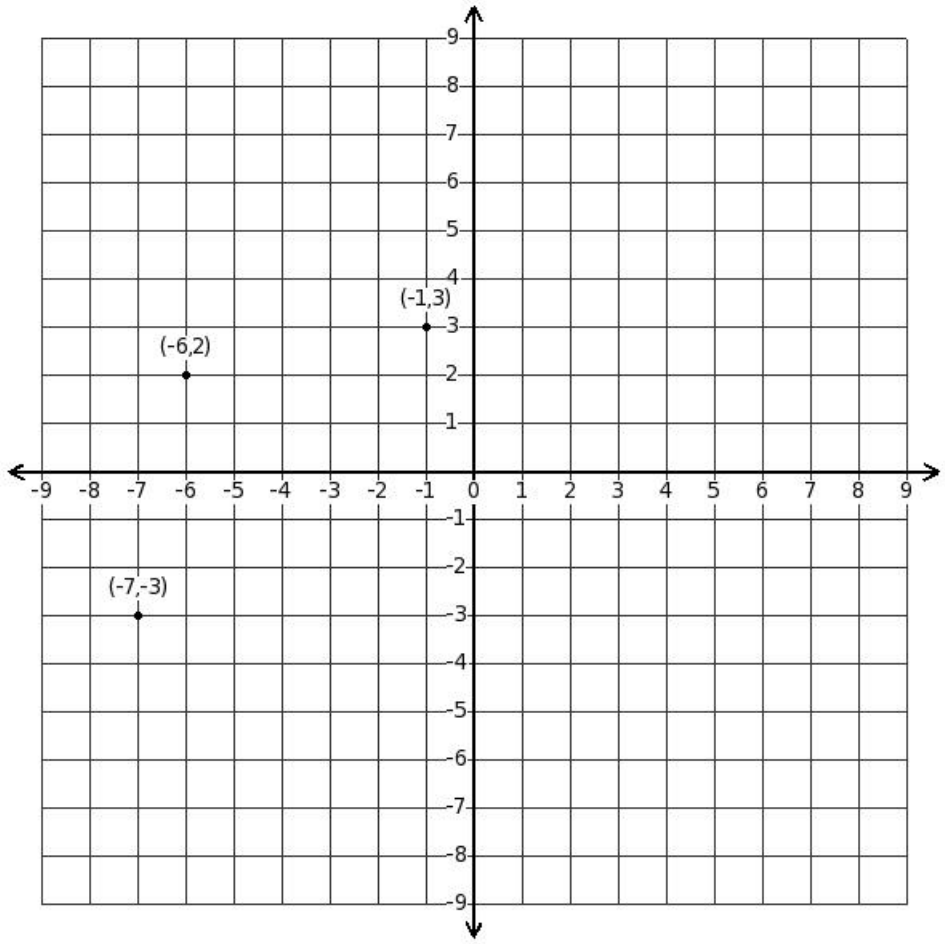
5. Write down the coordinates when reflected in the y-axis



(i) $(0,\ 4),(\ 6\ ,\ 2\ ),(\ 7\ ,(-\ 3\ ))$

(ii) $(\ 1\ ,\ 3\ ),(\ 6\ ,\ 2\ ),(\ 7\ ,(-\ 3\ ))$

(iii) $(\ 1\ ,\ 3\ ),(\ 8\ ,\ 4\ ),(\ 7\ ,(-\ 3\ ))$

(iv) $(\ 1\ ,\ 3\ ),(\ 6\ ,\ 2\ ),(\ 5\ ,(-\ 5\ ))$

(v) $(\ 1\ ,\ 3\ ),(\ 6\ ,\ 2\ ),(\ 8\ ,(-\ 4\ ))$

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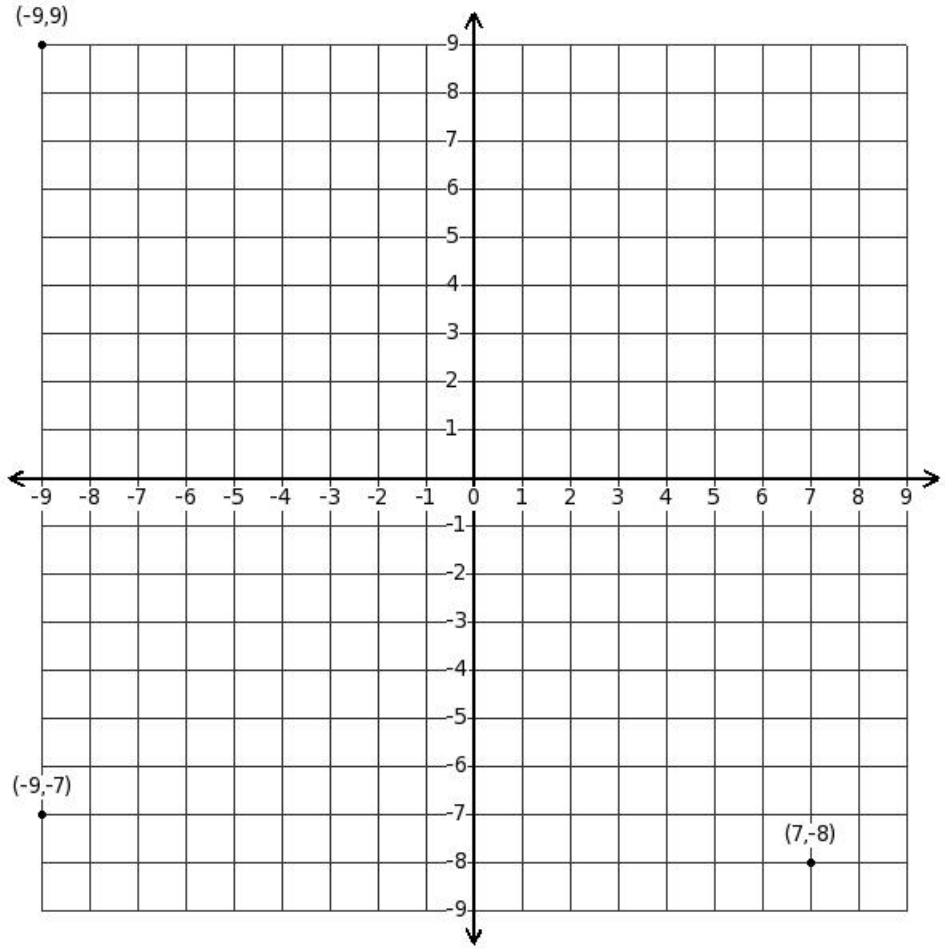
6. Write down the coordinates when reflected in the origin



(i) $(9,(-9)),(11,9),((-7),8)$

(ii) $(9,(-9)),(9,7),((-6),7)$

(iii) $(9,(-9)),(9,7),((-9),6)$

(iv) $(8,(-8)),(9,7),((-7),8)$

(v) $(9,(-9)),(9,7),((-7),8)$

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

$(2,(-9)),(1,2),(4,2)$

(i) $(2,9),(1,(-2)),(5,(-3))$

(ii) $(2,9),(1,(-2)),(4,(-2))$

(iii) $(2,9),(1,(-2)),(2,(-4))$

(iv) $(2,9),(3,0),(4,(-2))$

(v) $(1,10),(1,(-2)),(4,(-2))$

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

$(6,(-6)),(2,6),((-6),(-9))$

(i) $((-6),(-6)),((-2),6),(6,(-9))$

(ii) $((-7),(-5)),((-2),6),(6,(-9))$

(iii) $((-6),(-6)),(0,8),(6,(-9))$

(iv) $((-6),(-6)),((-2),6),(7,(-10))$

(v) $((-6),(-6)),((-2),6),(4,(-11))$

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9. Write down the coordinates when reflected in the origin

$(3,(-9)),(1,7),(8,6)$

(i) $((-3),9),((-1),(-7)),((-8),(-6))$

(ii) $((-4),10),((-1),(-7)),((-8),(-6))$

(iii) $((-3),9),(1,(-5)),((-8),(-6))$

(iv) $((-3),9),((-1),(-7)),((-10),(-8))$

(v) $((-3),9),((-1),(-7)),((-7),(-7))$

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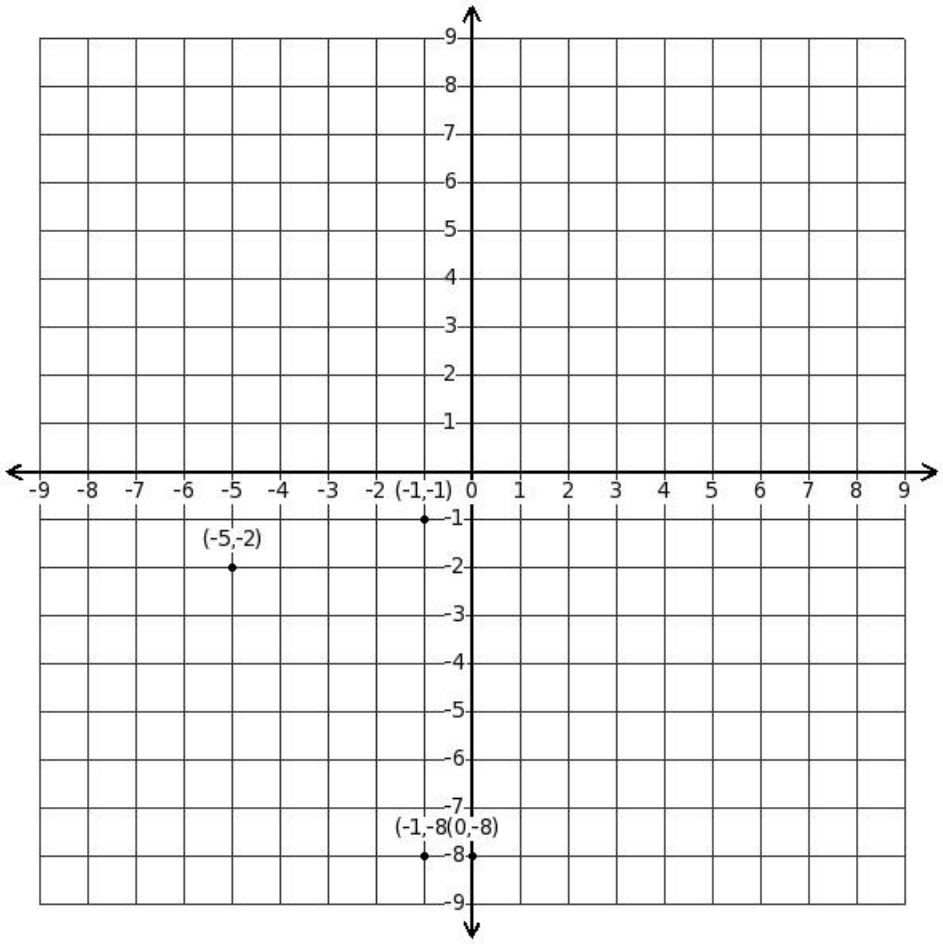
10. Write down the coordinates when reflected in the x-axis



(i) $((-1), 8), ((-5), 2), ((-3), (-1)), (0, 8)$

(ii) $(1, 10), ((-5), 2), ((-1), 1), (0, 8)$

(iii) $((-1), 8), ((-5), 2), ((-1), 1), (0, 8)$

(iv) $((-1), 8), ((-5), 2), (0,0), (0, 8)$

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

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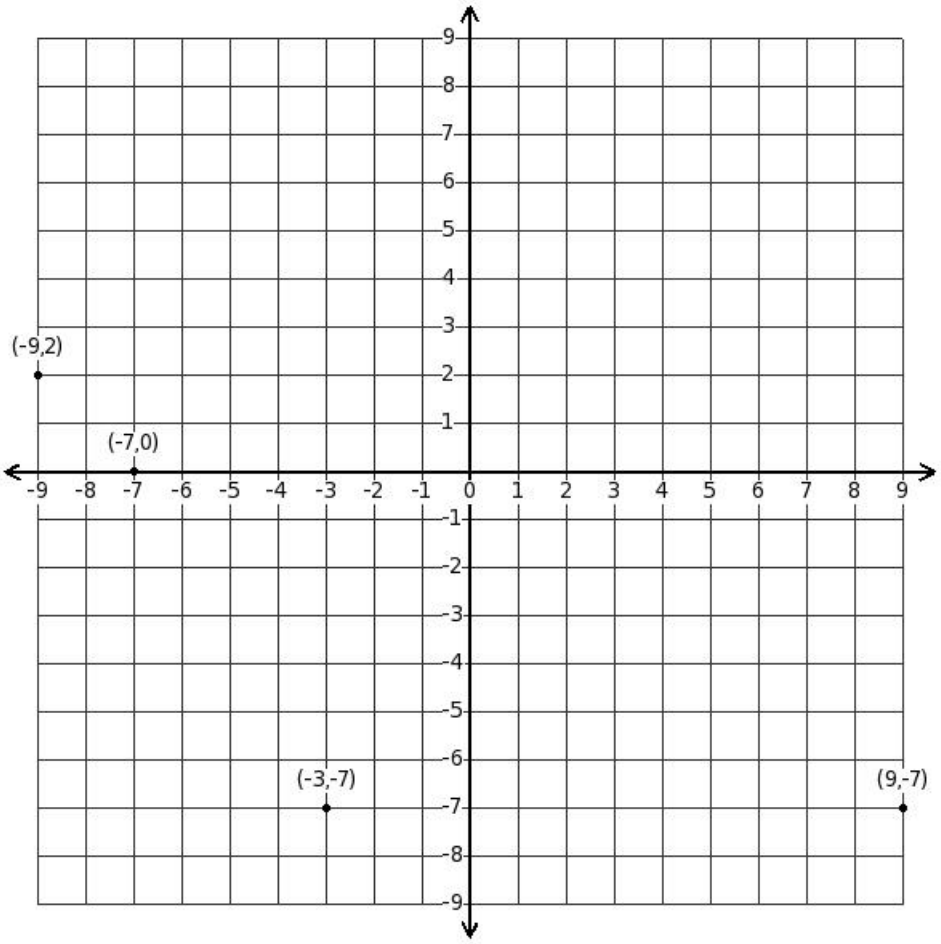
11. Write down the coordinates when reflected in the y-axis



(i) $((-9),(-7)),(7,0),(4,(-8)),(9,2)$

(ii) $((-9),(-7)),(7,0),(3,(-7)),(8,3)$

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

(iv) $((-7),(-5)),(7,0),(3,(-7)),(9,2)$

(v) $((-9),(-7)),(7,0),(1,(-9)),(9,2)$

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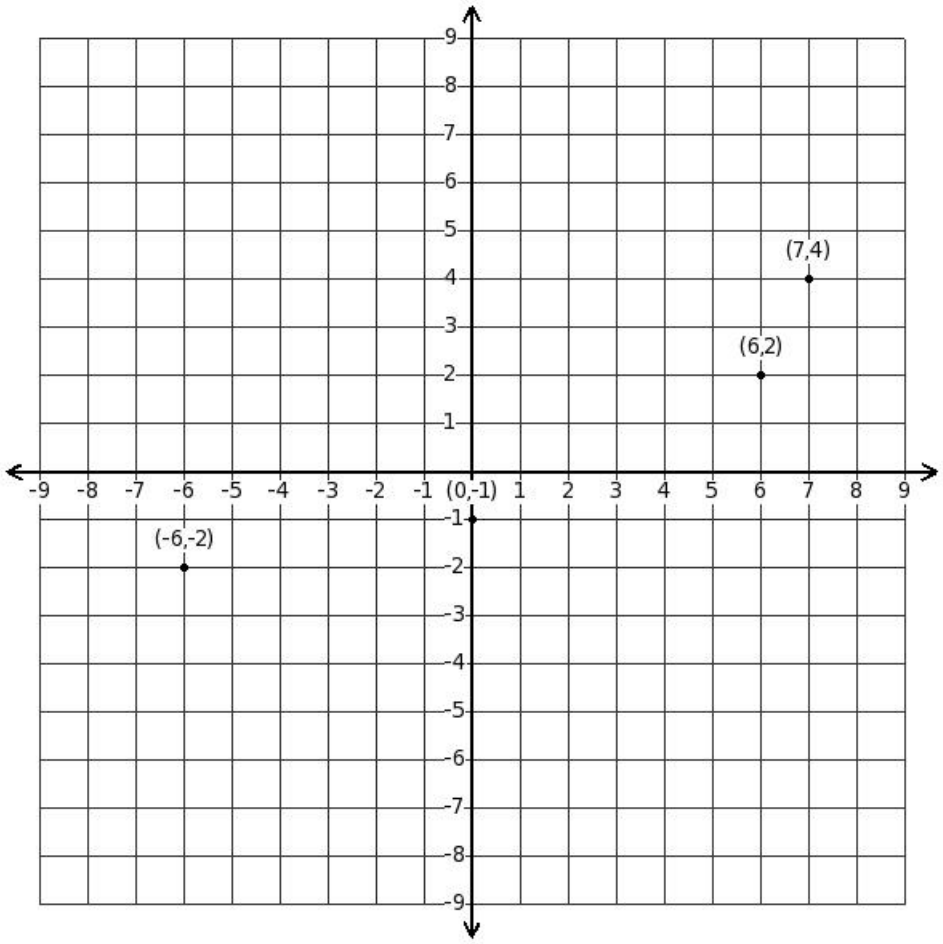
12. Write down the coordinates when reflected in the origin



(i) $(6, 2), (0, 1), ((-6), (-2)), ((-8), (-3))$

(ii) $(6, 2), (0, 1), ((-8), (-4)), ((-7), (-4))$

(iii) $(8, 4), (0, 1), ((-6), (-2)), ((-7), (-4))$

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

(v) $(6, 2), (0, 1), ((-6), (-2)), ((-7), (-4))$

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

$((-5), (-4)), ((-1), (-8)), ((-2), (-6)), ((-7), 1)$

(i) $((-5), 4), ((-1), 8), ((-1), 5), ((-7), (-1))$

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

(iii) $((-5), 4), ((-1), 8), ((-4), 4), ((-7), (-1))$

(iv) $((-5), 4), ((-1), 8), ((-2), 6), ((-7), (-1))$

(v) $((-5), 4), ((-1), 8), ((-2), 6), ((-8), 0)$

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

$(9, 7), ((-4), 1), (6, (-7)), (4, 5)$

(i) $((-9), 7), (4, 1), ((-8), (-9)), ((-4), 5)$

(ii) $((-9), 7), (4, 1), ((-6), (-7)), ((-5), 6)$

(iii) $((-7), 9), (4, 1), ((-6), (-7)), ((-4), 5)$

(iv) $((-9), 7), (4, 1), ((-5), (-8)), ((-4), 5)$

(v) $((-9), 7), (4, 1), ((-6), (-7)), ((-4), 5)$

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15. Write down the coordinates when reflected in the origin

$(8, (-2)), (4, 6), (4, (-7)), ((-7), (-7))$

(i) $((-8), 2), ((-4), (-6)), ((-4), 7), (7, 7)$

(ii) $((-6), 4), ((-4), (-6)), ((-4), 7), (7, 7)$

(iii) $((-8), 2), ((-4), (-6)), ((-3), 6), (7, 7)$

(iv) $((-8), 2), ((-4), (-6)), ((-4), 7), (6, 8)$

(v) $((-8), 2), ((-4), (-6)), ((-6), 5), (7, 7)$

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16. Find the coordinates of the reflection

of the point $((-5), (-8))$ in line $(7y - 14) = 0$

(i) $((-3), 14)$ (ii) $((-4), 11)$ (iii) $((-5), 12)$

(iv) $((-6), 13)$ (v) $((-7), 10)$

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17. Find the coordinates of the reflection

of the point $(8, 1)$ in line $(11x + 44) = 0$

(i) $((-15), 0)$ (ii) $((-18), (-1))$ (iii) $((-17), 2)$

(iv) $((-16), 1)$ (v) $((-14), 3)$

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

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

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

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

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20. Find the image of the point A $((-2), (-2))$
under the reflection of a point P $(2, 3)$

(i) $(6, 8)$ (ii) $(8, 10)$ (iii) $(5, 9)$ (iv) $(7, 7)$ (v) $(4, 6)$

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21. Find the coordinates of the point $(8, 6)$
when reflected in x-axis followed by reflection in y-axis

(i) $((-8), (-6))$ (ii) $(8, 6)$ (iii) $(8, (-6))$ (iv) $((-6), (-8))$ (v) $((-8), 6)$

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

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

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23. Find the coordinates of the point $(2, (-3))$
when reflected in y-axis and followed by reflection in x-axis

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

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

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

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25. Find the coordinates of the point $(7, (-1))$
when reflected in origin followed by reflection in x-axis

(i) $(7, (-1))$ (ii) $((-1), (-7))$ (iii) $(7, 1)$ (iv) $((-7), (-1))$ (v) $((-7), 1)$

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

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

Assignment Key

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