

EduSahara™ Learning Center Assignment**Grade : Class VII, ICSE****Chapter : Symmetry, Reflection and Rotation****Name : Rotation****Licensed To : Teachers and Students for non-commercial use**

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1. Find the new position of point $(8, 9)$ when rotated through 90° anticlockwise about the origin

(i) $((-9), 8)$ (ii) $(8, (-9))$ (iii) $(9, (-8))$ (iv) $(9, 8)$ (v) $((-9), (-8))$

2. Find the new position of point $((-5), (-8))$ when rotated through 90° clockwise about the origin

(i) $(8, (-5))$ (ii) $(8, 5)$ (iii) $((-8), 5)$ (iv) $((-8), (-5))$ (v) $(5, (-8))$

3. Find the new position of point $((-9), (-5))$ when rotated through 180° anticlockwise about the origin

(i) $(9, (-5))$ (ii) $(5, 9)$ (iii) $((-9), (-5))$ (iv) $(9, 5)$ (v) $((-9), 5)$

4. Find the new position of point $((-4), (-5))$ when rotated through 180° clockwise about the origin

(i) $((-4), (-5))$ (ii) $(5, 4)$ (iii) $(4, 5)$ (iv) $((-4), 5)$ (v) $(4, (-5))$

5. Find the image of the triangle formed by $(1, 6)$, $((-1), 4)$ and $(4, 5)$ when rotated about the origin by 90°

(i) $((-6), 1)$, $((-4), (-1))$, $((-5), 4)$

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

(iii) $((-6), 1)$, $((-4), (-1))$, $((-4), 3)$

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

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

6. Find the image of the triangle formed by $(1, 1)$, $((-2), (-2))$ and

$((-1), 3)$ when rotated about the origin by 180°

- (i) $((-1), (-1)), (2, 2), (2, (-4))$
 - (ii) $((-1), (-1)), (2, 2), (1, (-3))$
 - (iii) $((-1), (-1)), (4, 4), (1, (-3))$
 - (iv) $((-1), (-1)), (2, 2), ((-1), (-5))$
 - (v) $((-2), 0), (2, 2), (1, (-3))$
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7. Find the image of the triangle formed by $(5, 6), (3, (-2))$ and $(4, (-7))$ when rotated about the origin by 270°

- (i) $(6, (-5)), ((-2), (-3)), ((-6), (-5))$
 - (ii) $(6, (-5)), ((-2), (-3)), ((-7), (-4))$
 - (iii) $(5, (-4)), ((-2), (-3)), ((-7), (-4))$
 - (iv) $(6, (-5)), (0, (-1)), ((-7), (-4))$
 - (v) $(6, (-5)), ((-2), (-3)), ((-9), (-6))$
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8. Find the image of the rectangle formed by $((-3), (-4)), (5, (-4)), (5, 2)$ and $((-3), 2)$ when rotated about the origin by 90°

- (i) $(4, (-3)), (4, 5), ((-2), 5), ((-2), (-3))$
 - (ii) $(6, (-1)), (4, 5), ((-2), 5), ((-2), (-3))$
 - (iii) $(4, (-3)), (4, 5), ((-2), 5), ((-3), (-2))$
 - (iv) $(4, (-3)), (4, 5), ((-1), 4), ((-2), (-3))$
 - (v) $(4, (-3)), (4, 5), ((-4), 3), ((-2), (-3))$
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9. Find the image of the rectangle formed by $((-4), (-3)), (3, (-3)), (3, 1)$ and $((-4), 1)$ when rotated about the origin by 180°

- (i) $(4, 3), ((-3), 3), ((-5), (-3)), (4, (-1))$
- (ii) $(4, 3), ((-3), 3), ((-2), (-2)), (4, (-1))$
- (iii) $(4, 3), ((-3), 3), ((-3), (-1)), (4, (-1))$

(iv) $(6, 5), (-3, 3), (-3, -1), (4, -1)$

(v) $(4, 3), (-3, 3), (-3, -1), (3, 0)$

10. Find the image of the rectangle formed by $(-2, -4), (5, -4),$

$(5, 0)$ and $(-2, 0)$ when rotated about the origin by 270°

(i) $(-4, 2), (-4, -5), (0, -5), (0, 2)$

(ii) $(-4, 2), (-4, -5), (0, -5), (-1, 3)$

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

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

(v) $(-4, 2), (-4, -5), (-2, -7), (0, 2)$

Assignment Key

- 1) (i)
- 2) (iii)
- 3) (iv)
- 4) (iii)
- 5) (i)
- 6) (ii)
- 7) (ii)
- 8) (i)
- 9) (iii)
- 10) (i)