



1. Find the new position of point  $(-6, 4)$  when rotated through  $90^\circ$  anticlockwise about the origin  
(i)  $(-4, 6)$  (ii)  $(-6, -4)$  (iii)  $(-4, -6)$  (iv)  $(4, -6)$  (v)  $(4, 6)$
2. Find the new position of point  $(-4, -1)$  when rotated through  $90^\circ$  clockwise about the origin  
(i)  $(-1, 4)$  (ii)  $(1, 4)$  (iii)  $(4, -1)$  (iv)  $(1, -4)$  (v)  $(-1, -4)$
3. Find the new position of point  $(3, 6)$  when rotated through  $180^\circ$  anticlockwise about the origin  
(i)  $(-3, 6)$  (ii)  $(-3, -6)$  (iii)  $(3, -6)$  (iv)  $(3, 6)$  (v)  $(-6, -3)$
4. Find the new position of point  $(-6, -5)$  when rotated through  $180^\circ$  clockwise about the origin  
(i)  $(-6, 5)$  (ii)  $(6, 5)$  (iii)  $(5, 6)$  (iv)  $(6, -5)$  (v)  $(-6, -5)$
5. Find the image of the triangle formed by  $(-7, -2)$ ,  $(2, -5)$  and  $(4, 8)$  when rotated about the origin by  $90^\circ$   
(i)  $(2, -7)$ ,  $(5, 2)$ ,  $(-7, 3)$  (ii)  $(2, -7)$ ,  $(7, 4)$ ,  $(-8, 4)$  (iii)  $(1, -6)$ ,  $(5, 2)$ ,  $(-8, 4)$   
(iv)  $(2, -7)$ ,  $(5, 2)$ ,  $(-8, 4)$  (v)  $(2, -7)$ ,  $(5, 2)$ ,  $(-10, 2)$
6. Find the image of the triangle formed by  $(6, -2)$ ,  $(-7, 0)$  and  $(6, -4)$  when rotated about the origin by  $180^\circ$   
(i)  $(-6, 2)$ ,  $(7, 0)$ ,  $(-5, 3)$  (ii)  $(-6, 2)$ ,  $(7, 0)$ ,  $(-8, 2)$  (iii)  $(-7, 3)$ ,  $(7, 0)$ ,  $(-6, 4)$   
(iv)  $(-6, 2)$ ,  $(9, 2)$ ,  $(-6, 4)$  (v)  $(-6, 2)$ ,  $(7, 0)$ ,  $(-6, 4)$
7. Find the image of the triangle formed by  $(2, -1)$ ,  $(-1, -1)$  and  $(-3, -3)$  when rotated about the origin by  $270^\circ$   
(i)  $(-2, -1)$ ,  $(-1, 1)$ ,  $(-3, 3)$  (ii)  $(-1, -2)$ ,  $(-1, 1)$ ,  $(-3, 3)$  (iii)  $(-1, -2)$ ,  $(-1, 1)$ ,  $(-2, 2)$   
(iv)  $(-1, -2)$ ,  $(1, 3)$ ,  $(-3, 3)$  (v)  $(-1, -2)$ ,  $(-1, 1)$ ,  $(-5, 1)$
8. Find the image of the rectangle formed by  $(-6, -1)$ ,  $(0, -1)$ ,  $(0, 6)$  and  $(-6, 6)$  when rotated about the origin by  $90^\circ$   
(i)  $(1, -6)$ ,  $(1, 0)$ ,  $(-5, -1)$ ,  $(-6, -6)$  (ii)  $(3, -4)$ ,  $(1, 0)$ ,  $(-6, 0)$ ,  $(-6, -6)$   
(iii)  $(1, -6)$ ,  $(1, 0)$ ,  $(-6, 0)$ ,  $(-6, -6)$  (iv)  $(1, -6)$ ,  $(1, 0)$ ,  $(-6, 0)$ ,  $(-7, -5)$   
(v)  $(1, -6)$ ,  $(1, 0)$ ,  $(-8, -2)$ ,  $(-6, -6)$
9. Find the image of the rectangle formed by  $(-3, -2)$ ,  $(4, -2)$ ,  $(4, 2)$  and  $(-3, 2)$  when rotated about the origin by  $180^\circ$   
(i)  $(3, 2)$ ,  $(-4, 2)$ ,  $(-6, -4)$ ,  $(3, -2)$  (ii)  $(3, 2)$ ,  $(-4, 2)$ ,  $(-4, -2)$ ,  $(3, -2)$   
(iii)  $(5, 4)$ ,  $(-4, 2)$ ,  $(-4, -2)$ ,  $(3, -2)$  (iv)  $(3, 2)$ ,  $(-4, 2)$ ,  $(-4, -2)$ ,  $(2, -1)$   
(v)  $(3, 2)$ ,  $(-4, 2)$ ,  $(-3, -3)$ ,  $(3, -2)$

10. Find the image of the rectangle formed by  $(-5, -5)$ ,  $(3, -5)$ ,  $(3, 1)$  and  $(-5, 1)$  when rotated about the origin by  $270^\circ$

(i)  $(-5, 5)$ ,  $(-5, -3)$ ,  $(1, -3)$ ,  $(0, 6)$  (ii)  $(-5, 5)$ ,  $(-5, -3)$ ,  $(-1, -5)$ ,  $(1, 5)$

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

(v)  $(-5, 5)$ ,  $(-5, -3)$ ,  $(1, -3)$ ,  $(1, 5)$

## Assignment Key

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1) (iii)

2) (i)

3) (ii)

4) (ii)

5) (iv)

6) (v)

7) (ii)

8) (iii)

9) (ii)

10) (v)