## Directions: Explain algebraically how to complete the rotation.

1) A line segment TP is rotated $90^{\circ} \mathrm{CCW}$ about the fixed point of $\mathrm{J}(3,-2)$.
2) A triangle HUG is rotated $180^{\circ} \mathrm{CW}$ about the fixed point $\mathrm{K}(-5,0)$.

## Directions: Complete the rotation.

3) Rotate $\overline{A B} 180^{\circ}$ about $(0,2)$

4) Rotate $\triangle \mathrm{FGH}$ by $270^{\circ} \mathrm{CCW}$ about $(3,0)$

5) Rotate $\triangle C D E 90^{\circ} \mathrm{CW}$ about $(3,1)$

6) Rotate ABCD by $90^{\circ} \mathrm{CCW}$. about ( 0,0 )

7) Rotate $\overline{J K} 270^{\circ} \mathrm{CW}$ about ( $0,-3$ )

8) Rotate $\triangle A B C 180^{\circ} \mathrm{CW}$ about Point B


Directions: Find the specified image coordinate.
9) If $\mathrm{A}(4,10)$ is rotated $90^{\circ} \mathrm{CCW}$ about $\mathrm{M}(3,-1)$, what is $A^{\prime}$ ?
10) If $\mathrm{L}(-2,-2)$ is rotated $180^{\circ} \mathrm{CW}$ about $\mathrm{W}(0,6)$, what is L '?

