## Coordinate Geometry Review (Use Graph Paper For Problems without pics)

## Partitioning a Segment

1. Directed line segment (vector) $\overrightarrow{P Q}$ is shown here. What are the coordinates of the point $1 / 3$ of the way from $P(4,4)$ to $Q(-2,1)$ ?
2. Place the point that is $\frac{2}{3}$ of the way from R to S if $\overrightarrow{R S}$ has endpoints $R(-2,-2)$ and $S(4,-1)$.


## Coordinates, Distance, and Area

3. To the nearest tenth, find the perimeter of a triangle with vertices at $(-3,4),(5,2)$, and $(2,-2)$.
4. Find the area of the triangle shown here $\rightarrow$

## Lines on the Coordinate Plane

5. On the grid below, graph the line that is parallel to the line with equation $-\frac{1}{3} x+y=2$ and that passes through
 the point $(3,0)$.

6. On the grid, graph the line that is the perpendicular bisector of the line segment with endpoints $(-2,4)$ and $(2,-2)$.

7. Write the equation of a line perpendicular to $y=\frac{2}{3} x-4$ that passes through ( $-1,4$ ).
