Need to know, from Unit 2: Analytic Geometry Formulas:

slope midpoint length equation of a circle
$$m = \frac{y_2 - y_1}{x_2 - x_1} \qquad \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right) \qquad d = \sqrt{\left(x_2 - x_1\right)^2 + \left(y_2 - y_1\right)^2} \qquad x^2 + y^2 = r^2$$

## **Anchor Charts**

finding the equation of the median of a triangle from a given vertex finding the equation of the altitude of a triangle from a given vertex finding the equation of the perpendicular bisector of a line segment finding the point of intersection of any of the above

## Other Concepts

finding the equation of a line
is a point on a line?
finding the equation of a circle
is a point inside, outside or on a circle?
chords, diameters, and radius of a circle
parallel vs. perpendicular lines and the relationship between their slopes
converting an entire radical to a mixed radical in lowest terms
proving a geometric figure is:

a right triangle an equilateral triangle a square an isosceles triangle a rectangle a rectangle