

Baniyas City School

Gr 11ADV

Math

Equation of circles

Name: _____

Date : _____

Finding Circles in Standard Form:

$$x^2 + y^2 + 6x - 8y - 11 = 0$$

$$(x^2 + 6x) + (y^2 - 8y) = 11$$

$$(x^2 + 6x + \textcolor{blue}{9}) + (y^2 - 8y + \textcolor{teal}{16}) = 11 + \textcolor{brown}{9} + \textcolor{brown}{16}$$

$$(x + \textcolor{brown}{3})^2 + (y - \textcolor{brown}{4})^2 = \textcolor{brown}{36}$$

Center: $(\textcolor{brown}{-3}, \textcolor{brown}{4})$ Radius: _____