Name : _____ Score : _____

Teacher : _____ Date : _____

Properties of Circles

Identify the center and radius of each equation.

1) $x^2 - 20x - 28 = -y^2 - 8y$

2) $(x + 7)^2 + (y - 5)^2 = 25$

3) $-2\sqrt{3}\,x + 2\sqrt{7}\,y - 1 = -x^2 - y^2$

4) $(x + \sqrt{11})^2 + (y - \sqrt{7})^2 = 11$

5) $y^2 - 2\sqrt{6}\,x - 2\sqrt{5}\,y + 8 = -x^2$

6) $(x + \frac{3}{4})^2 + (y + \frac{1}{2})^2 = \frac{169}{4}$

7) $x^2 + y^2 + 22x - 10y + 25 = 0$

8) $y^2 - 2\sqrt{6}\,x - 2\sqrt{5}\,y + 5 = -x^2$

9) $(x - \frac{3}{4})^2 + (y - \frac{7}{2})^2 = \frac{49}{4}$

10) $(x + \frac{7}{2})^2 + (y + \frac{2}{3})^2 = \frac{49}{4}$

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Properties of Circles

Identify the center and radius of each equation.

1) $x^2 - 20x - 28 = -y^2 - 8y$

Center: (10 , -4)

Radius: 12

2) $(x + 7)^2 + (y - 5)^2 = 25$

Center: (-7 , 5)

Radius: 5

3) $-2\sqrt{3}\,x + 2\sqrt{7}\,y - 1 = -x^2 - y^2$

Center: ($\sqrt{3}$, $-\sqrt{7}$)

Radius: $\sqrt{11}$

4) $(x + \sqrt{11})^2 + (y - \sqrt{7})^2 = 11$

Center: ($-\sqrt{11}$, $\sqrt{7}$)

Radius: $\sqrt{11}$

5) $y^2 - 2\sqrt{6}\,x - 2\sqrt{5}\,y + 8 = -x^2$

Center: ($\sqrt{6}$, $\sqrt{5}$)

Radius: $\sqrt{3}$

6) $(x + \frac{3}{4})^2 + (y + \frac{1}{2})^2 = \frac{169}{4}$

Center: ($\frac{-3}{4}$, $\frac{-1}{2}$)

Radius: $\frac{13}{2}$

7) $x^2 + y^2 + 22x - 10y + 25 = 0$

Center: (-11 , 5)

Radius: 11

8) $y^2 - 2\sqrt{6}\,x - 2\sqrt{5}\,y + 5 = -x^2$

Center: ($\sqrt{6}$, $\sqrt{5}$)

Radius: $\sqrt{6}$

9) $(x - \frac{3}{4})^2 + (y - \frac{7}{2})^2 = \frac{49}{4}$

Center: ($\frac{3}{4}$, $\frac{7}{2}$)

Radius: $\frac{7}{2}$

10) $(x + \frac{7}{2})^2 + (y + \frac{2}{3})^2 = \frac{49}{4}$

Center: ($\frac{-7}{2}$, $\frac{-2}{3}$)

Radius: $\frac{7}{2}$