Name : _____ Score : _____

Teacher : _____ Date : _____

Properties of Circles

Identify the center and radius of each equation.

1) $(x - \frac{2}{3})^2 + (y - \frac{7}{2})^2 = \frac{121}{4}$

2) $(x - \frac{3}{4})^2 + (y - \frac{7}{2})^2 = \frac{169}{4}$

3) $(x + 5)^2 + (y - 12)^2 = 121$

4) $2\sqrt{6}\,x - 2\sqrt{7}\,y + 2 = -x^2 - y^2$

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

6) $x^2 + y^2 - 2\sqrt{3}\,x + 2\sqrt{5}\,y + 3 = 0$

7) $(x + \frac{3}{4})^2 + (y - \frac{2}{3})^2 = \frac{25}{4}$

8) $x^2 = -y^2 + 10x - 6y - 9$

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

10) $x^2 = -y^2 - 6x - 22y + 14$

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Properties of Circles

Identify the center and radius of each equation.

1) $(x - \frac{2}{3})^2 + (y - \frac{7}{2})^2 = \frac{121}{4}$

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

Radius: $\frac{11}{2}$

2) $(x - \frac{3}{4})^2 + (y - \frac{7}{2})^2 = \frac{169}{4}$

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

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

3) $(x + 5)^2 + (y - 12)^2 = 121$

Center: (-5 , 12)

Radius: 11

4) $2\sqrt{6}\,x - 2\sqrt{7}\,y + 2 = -x^2 - y^2$

Center: $(-\sqrt{6}, \sqrt{7})$

Radius: $\sqrt{11}$

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

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

Radius: $\sqrt{11}$

6) $x^2 + y^2 - 2\sqrt{3}\,x + 2\sqrt{5}\,y + 3 = 0$

Center: $(\sqrt{3}, -\sqrt{5})$

Radius: $\sqrt{5}$

7) $(x + \frac{3}{4})^2 + (y - \frac{2}{3})^2 = \frac{25}{4}$

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

Radius: $\frac{5}{2}$

8) $x^2 = -y^2 + 10x - 6y - 9$

Center: (5 , -3)

Radius: 5

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

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

Radius: $\sqrt{6}$

10) $x^2 = -y^2 - 6x - 22y + 14$

Center: (-3 , -11)

Radius: 12