Name : _____ Score : _____

Teacher : _____ Date : _____

Properties of Circles

Identify the center and radius of each equation.

1) $(x - \sqrt{7})^2 + (y - \sqrt{6})^2 = 14$

2) $(x + \frac{1}{2})^2 + (y - \frac{5}{2})^2 = \frac{225}{4}$

3) $(x - \sqrt{3})^2 + (y + \sqrt{7})^2 = 14$

4) $y^2 + 4y - 2x = -x^2 + 31$

5) $(x + \sqrt{10})^2 + (y + \sqrt{11})^2 = 10$

6) $x^2 + 12x + 36 = -y^2 + 6y$

7) $(x - \frac{11}{2})^2 + (y - \frac{1}{2})^2 = \frac{81}{4}$

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

9) $y^2 + 18y - 10x = -x^2 - 90$

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

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Properties of Circles

Identify the center and radius of each equation.

1) $(x - \sqrt{7})^2 + (y - \sqrt{6})^2 = 14$

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

Radius: $\sqrt{14}$

2) $(x + \frac{1}{2})^2 + (y - \frac{5}{2})^2 = \frac{225}{4}$

Center: $(\frac{-1}{2}, \frac{5}{2})$

Radius: $\frac{15}{2}$

3) $(x - \sqrt{3})^2 + (y + \sqrt{7})^2 = 14$

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

Radius: $\sqrt{14}$

4) $y^2 + 4y - 2x = -x^2 + 31$

Center: (1 , -2)

Radius: 6

5) $(x + \sqrt{10})^2 + (y + \sqrt{11})^2 = 10$

Center: $(-\sqrt{10}, -\sqrt{11})$

Radius: $\sqrt{10}$

6) $x^2 + 12x + 36 = -y^2 + 6y$

Center: (-6 , 3)

Radius: 3

7) $(x - \frac{11}{2})^2 + (y - \frac{1}{2})^2 = \frac{81}{4}$

Center: $(\frac{11}{2}, \frac{1}{2})$

Radius: $\frac{9}{2}$

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

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

Radius: $\sqrt{7}$

9) $y^2 + 18y - 10x = -x^2 - 90$

Center: (5 , -9)

Radius: 4

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

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

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