Name: _____ Date: _____

Algebra Proofs Practice

$$distance = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} \qquad midpoint = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

1. A circle has a diameter with endpoints (-2, 6) and (4, 0). Find the center and radius of the circle.

2. Point C is the **midpoint** between points A and B. If point C is at (-4, 10) and Point A is (4, 8), what is the Point B?

3. Circle C has a center of (–2, 3) and a radius of 4. Does point (–4, 6) lie on circle C?

4. A circle is centered at (5, 3) and has a radius of 4. Does the point (2.5, 6) lie on the circle?