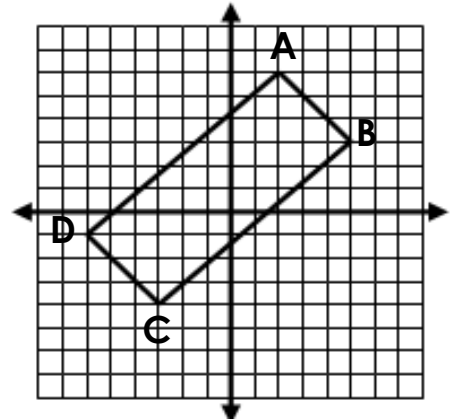


Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Unit 7 Review**

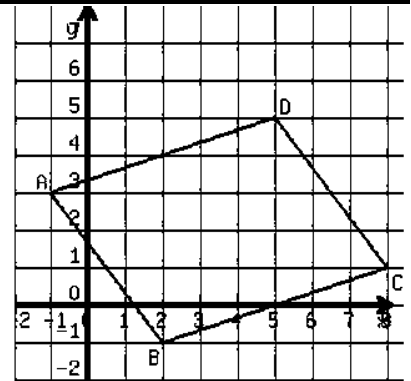
The following quadrilateral is a parallelogram.

1. Verify that both pairs of opposite sides are parallel.
2. Verify that both pairs of opposite sides are congruent.
3. The diagonals of a rhombus are perpendicular. Prove that this is not a rhombus.



Prove that the quadrilateral is a parallelogram:

4. By showing both pairs of opposite sides are parallel.
5. By showing both pairs of opposite sides are congruent.

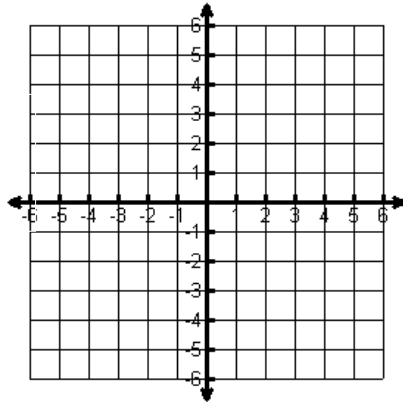


**Graph the following circles. State the center and radius.**

6.  $x^2 + y^2 = 24$

Center: \_\_\_\_\_

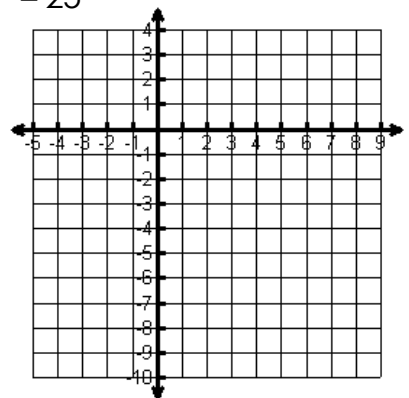
Radius: \_\_\_\_\_



7.  $(x - 2)^2 + (y + 3)^2 = 25$

Center: \_\_\_\_\_

Radius: \_\_\_\_\_



**Write the standard equation for the circle.**

8.  $x^2 + y^2 - 10x - 2y = -10$

**Write the general form for circle.**

9.  $(x - 2)^2 + (y + 1)^2 = 9$

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10. Write the equation of the circle centered at  $(-4, 6)$  with a diameter of 16.

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11. A circular disk drive has a diameter with endpoints at  $(-9, 2)$  and  $(15, 12)$ . Find the center and radius of the disk drive. Write the equation of the circle in standard form.

Center: \_\_\_\_\_

$r =$  \_\_\_\_\_

Equation: \_\_\_\_\_

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12. Find the **center** of a circle whose diameter has endpoints at:  $(-5, 3)$  and  $(2, 6)$ .

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13. Find the coordinates of the **other endpoint** of a diameter with an endpoint of  $(-1, 5)$  and a **center** at  $(2, -3)$ .

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14. Circle C has a center of  $(5, 2)$  and a radius of 6. Does the point  $(8, 7)$  lie on, inside, outside circle C?

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15. Name the quadrilateral(s) that has the following:

a) 4 congruent sides and 4 right angles: \_\_\_\_\_

b) Diagonals are congruent and 4 right angles: \_\_\_\_\_

c) Diagonals are perpendicular & consecutive sides are congruent: \_\_\_\_\_

d) 2 pairs of parallel sides and 4 congruent sides: \_\_\_\_\_

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