Mod 9 Review

1. What is the distance formula?

2. Use the distance formula to calculate the **EXACT** distance between the following two points
   a. (3,8) and (9, 10)

   b. (-8, 10) and (-6, 7)

   c. (9.5, -3.4) and (-2.1, 12.7)

   d. (101, 98) and (-23, 40)
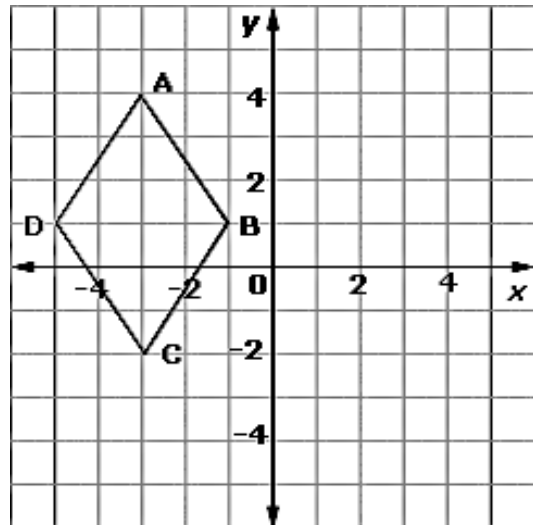

3. What is the definition of a...
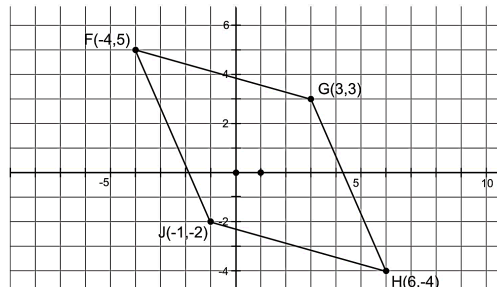   a. Parallelogram

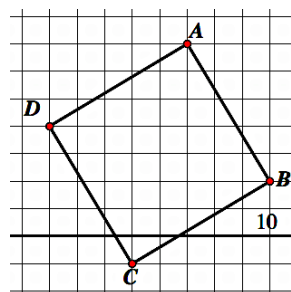   b. Rectangle

   c. Rhombus

   d. Square

4. Prove that the following is a **RHOMBUS** using the coordinate grid. **Explain** how you used the coordinate grid to prove that this is true.

5. Prove that the following is a **PARALLELOGRAM** using the coordinate grid. **Explain** how you used the coordinate grid to prove that this is true.
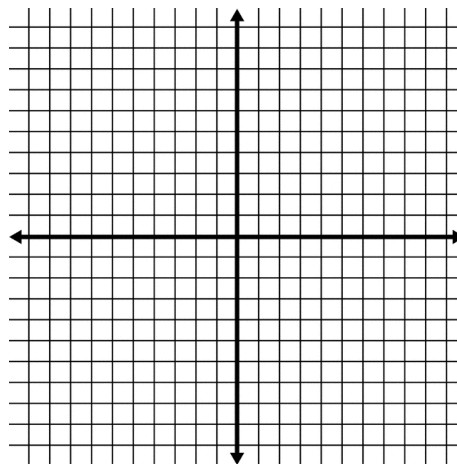
F(-4,5)
G(3,3)
J(-1,-2)
H(6,-4)

6. Prove that the following is a **SQUARE** using the coordinate grid. **Explain** how you used the coordinate grid to prove that this is true.
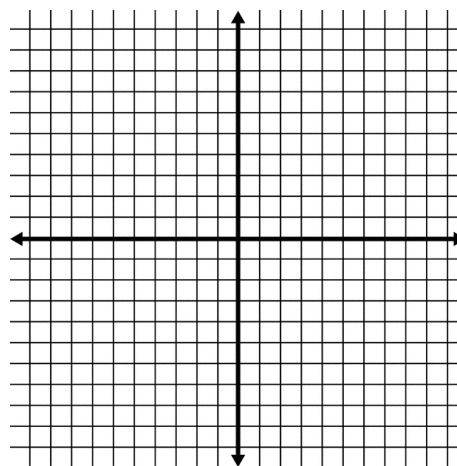
A
D
B
10
C

If $f(x) = g(x) - 2$, and $g(x) = 3x - 5$, then...

7. Which graph is higher on the graph $g(x)$ or $f(x)$

8. The explicit function for f(x) would be...

If $f(x) = g(x) + 2$, and $g(x) = -\frac{4}{3}x + 2$, then...
9. Graph $f(x)$ and g(x) and label them.

If $f(x) = g(x) - 5$, and $g(x) = 3 \cdot 9^x$, then...

10. What is the y-intercept of f(x)?

11. The explicit function for f(x) would be...

If $f(x) = g(x) + 3$, and $g(x) = \frac{1}{4} \cdot 2^x$, then...
12. Graph $f(x)$ and g(x) and label them.