Topic 9.2   Name: _____
Direct, Inverse, and Joint Variation   Date: _____
Homework

State whether each equation represents a direct, inverse, or joint variation. Name the constant of variation.

1. $y = 2x$

2. $\dfrac{x}{5} = y$

3. $xy = 12$

4. $D = \dfrac{3}{4}gh$

Write an equation for each statement. Then solve the equation.

5. If y varies directly as x and y = 15 when x = 3, find y when x = 12.

6. If y varies inversely as x and y = 2 when x = 8, find x when y = 14.

7. Suppose y varies jointly with x and z. If y = 20 when x = 2 and z = 5, find y when x = 14 and z = 8.

8. If y varies inversely as x and x = 7 when y = 21, find y when x = 42.

9. If y varies directly as x and x = 36 when y = 4, find x when y = 24

10. If y varies directly as x and y = 9 when x = 12, find y when x = 20.