Section 11.2 Worksheet

Name: _____

Does the equation model *direct variation, inverse variation,* or *neither*?

1.) $y = \frac{4}{x}$

2.) $y = 4x^2$

3.) $y = 4x$

The variables x and y vary <u>directly</u>. Use the given value to write an equation that relates x and y.

4.) $x = 4, \; y = 12$

5.) $x = 6, \; y = 15$

6.) $x = 32, \; y = 16$

The variables x and y vary <u>inversely</u>. Use the given value to write an equation that relates x and y.

7.) $x = 8, \; y = 2$

8.) $x = 6, \; y = 8$

9.) $x = \frac{2}{3}, \; y = 21$

REVIEW:

Solve the proportions using cross multiplication.

10.) $\dfrac{x+2}{2} = \dfrac{4}{x}$

11.) $\dfrac{x}{4} = \dfrac{x+8}{x}$

Solve the equation.

12.) $x^2 - 11x + 19 = -5$

13.) $(2m + 3)(4m + 3) = 0$

Factor the special patterns.

14.) $x^2 - 64$

15.) $9y^2 - 49$