Section 11.4 Worksheet

Name: _____

Find the product of the rational expression and simplify.

1.) $\dfrac{4x}{3} \cdot \dfrac{2}{x}$

2.) $\dfrac{7}{4x^2} \cdot \dfrac{5x}{14}$

3.) $\dfrac{3x^2}{2x} \cdot \dfrac{18x^2}{9x}$

4.) $\dfrac{x+2}{3x+6} \cdot \dfrac{6}{x}$

5.) $\dfrac{x-3}{x+3} \cdot \dfrac{x+3}{x^2-9}$

6.) $\dfrac{x+4}{x^2+5x+4} \cdot (3x+3)$

Find the reciprocal of the rational expression.

7.) $\dfrac{-3}{x+2}$

8.) $\dfrac{3}{x}$

9.) $\dfrac{x+12}{x^2-4}$

10.) $2x+1$

Find the quiotient of the rational expression and simplify.

11.) $\dfrac{5x^2}{7} \div \dfrac{10x^3}{21}$

12.) $\dfrac{x+7}{x} \div \dfrac{x+7}{x+3}$

13.) $\dfrac{3x+15}{x+4} \div \dfrac{3x}{x+4}$

14.) $\dfrac{x-5}{2(x+6)} \div \dfrac{8(x-5)}{4(x+6)}$

15.) $\dfrac{3}{x+2} \div (x-1)$

16.) $\dfrac{x+3}{x^2+4x+4} \div (2x+6)$

REVIEW:

Solve the equation.

17.) $(x + 3)^2 - 4 = 12$ 18.) $5x^2 - 15x = 0$

Graph the function by completing the table. Identify the graph's axis of symmetry (AOS), vertex, and tell whether the graph opens up or down.
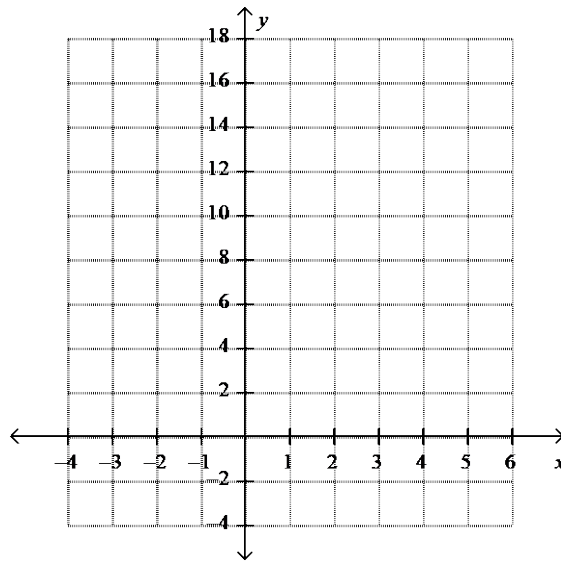
19.) $y = x^2 + 4x + 2$

AOS: _____

vertex: _____

y-int: _____

opens: _____

x					
y					