Section 11.5 Worksheet

Name: _____

Find the sum of the rational expression and simplify.

1.) $\frac{x}{3} + \frac{2x}{3}$

2.) $\frac{7}{5x} + \frac{8}{5x}$

3.) $\frac{x+2}{x+6} + \frac{6}{x+6}$

4.) $\frac{2x}{x^2 - x} + \frac{3x}{x^2 - x}$

5.) $\frac{x}{x^2 + 3x + 2} + \frac{1}{x^2 + 3x + 2}$

6.) $\frac{x^2 + 8}{x^2 - 5x + 6} + \frac{6x}{x^2 - 5x + 6}$

Find the difference of the rational expression and simplify.

7.) $\frac{3x}{8} - \frac{10x}{8}$

8.) $\frac{9}{2x} - \frac{5}{2x}$

9.) $\frac{-3}{x+3} - \frac{3}{x+3}$

10.) $\frac{2x+4}{5x+4} - \frac{x+1}{5x+4}$

11.) $\frac{x^2}{x^2+5x+6} - \frac{4}{x^2+5x+6}$

12.) $\frac{y^2+7}{y^2-11y\ +30} - \frac{6y+2}{y^2-11y\ +30}$

REVIEW:

Find the product of the rational expression and simplify.

13.) $\frac{45x^3-9x^2}{x} \cdot \frac{2}{6(x-5)}$

14.) $\frac{9x^2}{4} \cdot \frac{8}{18x}$

Find the quitoent of the rational expression and simplify.

15.) $\frac{x}{x+2} \div \frac{x+5}{x+2}$

16.) $\frac{x+5}{2+3x} \div (x^2-25)$

Factor the expression.

17.) x^2-16

18.) $6x^2-19x-7$