Advanced Algebra II 7.7 – 7.10 Review Worksheet Name

Simplify.

1. $\frac{8x^{2}- 4x}{4x^{2}- 1} ÷ \frac{8x^{2}}{6x+3}$ 2. $\frac{2x + 6}{x^{2}- 1} ∙ \frac{x^{2}+ 3x +2}{x^{2}+5x +6}$ 3. $\frac{x^{2}- 3x-10}{x^{2}- 25} ∙ \frac{x^{2}+ 4x-5}{x^{2}+5x +6}$

4. $\frac{6x-12}{8x^{2}- 32} ÷ \frac{x^{2}- 2x-8}{x^{2}+4x +4}$ 5. $\frac{6}{x-1}- \frac{2}{x-2}$ 6. $\frac{4}{1-x}+ \frac{2}{( 1-x)^{2}}$

Solve.

7. x3 – 7x – 6 = 0 8. 4x2 – 9 = 0 9. $\frac{3x- 1}{x+5}+ \frac{32}{x^{2}- 25}= \frac{3x+1}{x-5}$ 10. $\frac{x}{x+5}- \frac{5}{x-5}= \frac{x^{2}+ 25}{x^{2}- 25}$

11. Plot the graph of f(x) = $\frac{2x+1}{2x^{2}- 3x-2}$