

Accelerated Geom/Alg 2
Multiplying/Dividing Rational Expressions

Name _____

Date _____ Block _____

Simplify each expression.

1. $\frac{3x^2-5x-2}{x^2-4}$

1. _____

2. $\frac{x^2-25}{x^3-125}$

2. _____

3. $\frac{x^2-2x}{x^2+2x+1} * \frac{x^2+4x+3}{x^2+3x}$

3. _____

4. $\frac{21x^{10}y^5}{5x^2} * \frac{x^3}{35y^4}$

4. _____

5. $\frac{7x^2-21x}{x^2-2x-35} \div \frac{x^2}{x-7}$

5. _____

$$6. \frac{2x^3 - 12x^2}{x^2 - 4x - 12} \div \frac{8x^3 + 24x^2}{x^2 + 9x + 18}$$

6. _____

$$7. \frac{x^2 - 100}{4x^2} * \frac{x^3 - 5x^2 - 50x}{x^4 + 10x^3} \div \frac{(x+10)^2}{5x}$$

7. _____

$$8. \frac{1}{x^3 + 10x^2} \div \frac{x-3}{x^2 - 9} * \frac{x+10}{x^2 + 7x + 12}$$

8. _____