

13.2 Homework - Multiplying & Dividing Rational Expressions

Period _____

Simplify each expression.

1) $\frac{7r + 14}{r + 3} \cdot \frac{1}{r + 2}$

2) $\frac{x^2 - 10x + 16}{3x^2} \div \frac{7x^3 - 56x^2}{3x^2}$

3) $\frac{x + 8}{x + 1} \div \frac{x + 5}{x^2 + 6x + 5}$

4) $\frac{x^2 + 5x - 14}{x + 7} \cdot \frac{x + 3}{x^2 - 4x + 4}$

5) $\frac{r + 7}{r - 4} \cdot \frac{5r - 20}{5r + 35}$

6) $\frac{p^2 - p - 6}{p + 2} \cdot \frac{p + 6}{p^2 + p - 12}$

7) $\frac{4x^3 - 4x^2}{70x + 100} \cdot \frac{42x + 60}{4x^2}$

8) $\frac{12p^3 - 32p^2}{7p^2 + 63p + 56} \div \frac{9p^2 - 3p - 56}{21p^2 + 70p + 49}$

9) $\frac{7m^2 + 70m + 63}{3m^2 + 22m - 45}$

10) $\frac{5x^3 - 44x^2 - 9x}{2x^2 - 27x + 81}$