

12-4a Multiplying & Dividing Rational Expressions

Name _____

Page 902 #3 -11

Multiply. Simplify your answer.

$$3. \frac{x-2}{x+3} \cdot \frac{4x+12}{6}$$

$$4. \frac{ab}{c} \cdot \frac{2a^2}{3c}$$

$$5. \frac{7c^4d}{10c} \cdot \frac{5a}{21c^3d}$$

$$6. \frac{12p^2q}{5p} \cdot \frac{15p^4q^3}{12q}$$

$$7. \frac{12}{4y+8}(y^2-4)$$

$$8. \frac{x+2}{6x^2}(5x+10)$$

$$9. \frac{3m}{6m+18}(m^2-7m-30)$$

$$10. \frac{4p}{8p+16}(p^2-5p-14)$$

$$11. \frac{a^2}{a}(a^2+10a+25)$$

12-4b Multiplying & Dividing Rational Expressions

Name _____

Page 902 #12 – 18, 23, 24 (skip #16)

Multiply. Simplify your answer.

$$12. \frac{-c}{4c+4}(c^2 - c - 2)$$

$$13. \frac{a^2 + 6ab}{b} \cdot \frac{5 + 3a}{3a^2b + 5ab}$$

$$14. \frac{x^2 + 5x + 4}{x - 4} \cdot \frac{x^2 - 2x - 8}{x^2 + 6x + 8}$$

$$15. \frac{j - 1}{j^2 - 4j + 3} \cdot \frac{j^2 - 5j + 6}{2j - 4}$$

$$17. \frac{r^2 + 15r + 14}{r^2 - 16} \cdot \frac{2r + 8}{r + 1}$$

$$18. \frac{y - 8}{y^2 - 1} \cdot \frac{y + 2}{y^2 - 49}$$

Multiply. Simplify your answer.

$$23. \frac{p^6q^2}{7r^3} \cdot \frac{-3p^2}{r}$$

$$24. \frac{3r^2t}{6st^3} \cdot \frac{2r^2s^3t^2}{8r^4s^2}$$