

Chapter 11 Review #1

Let's practice what we've learned about working with rational expressions.

Complete each problem as indicated. Express answers in simplest form.

$$1. \quad \frac{3x^2y}{12xy^3z} =$$

$$2. \quad \frac{a^2 - 25}{a^2 + 3a - 10} =$$

$$3. \quad \frac{x^2 + 10x + 21}{x^3 + x^2 - 42x} =$$

$$4. \quad \frac{7b^2}{9} \cdot \frac{6a^2}{b} =$$

$$5. \quad (3x + 30) \cdot \frac{10}{x^2 - 100} =$$

$$6. \quad \frac{x^2 + x - 12}{x + 2} \cdot \frac{x + 4}{x^2 - x - 6} =$$

$$7. \quad \frac{p^3}{2q} \div \frac{p^2}{4q} =$$

$$8. \quad \frac{3y-12}{y+4} \div (y^2 - 6y + 8) =$$

$$9. \quad \frac{2x}{x-3} - \frac{6}{x-3} =$$

$$10. \quad \frac{-5}{2n-5} + \frac{2n}{2n-5} =$$

$$11. \quad \frac{m^2}{m-n} - \frac{2mn-n^2}{m-n} =$$

$$12. \quad \frac{7}{3a} - \frac{3}{6a^2} =$$

$$13. \quad \frac{2a}{2a+8} - \frac{4}{5a+20} =$$

$$14. \quad \frac{3a}{a-2} + \frac{5a}{a+1} =$$