

Multiply or Divide.

$$1. \frac{6x}{17y^2} \cdot \frac{4y^8}{3x^9}$$

$$\frac{8y^6}{17x^8}$$

$$2. \frac{x+4}{2x} \cdot \frac{3x-6}{x^2+2x-8}$$

$$\frac{3}{2x}$$

$$3. \frac{x^2-81}{x^2-3x-54} \div \frac{2x+18}{6x+36}$$

$$3$$

$$4. \frac{2x^2+5x+3}{x^2+9x+14} \div \frac{2x^2-3x-9}{x^2+6x-7}$$

$$\frac{(x+1)(x-1)}{(x+2)(x-3)}$$

Find the LCM.

5. $3x^2$ and $4x^3$

$$12x^3$$

6. $x-7$ and $x^2-5x-14$

$$(x+2)(x-7)$$

Add or Subtract.

$$7. \frac{3}{8x^2} + \frac{7}{24x^3}$$

$$\frac{9x+7}{24x^3}$$

$$8. \frac{4}{x+6} + \frac{3x-8}{x^2+x-30}$$

$$\frac{7x-28}{(x-5)(x+6)}$$

$$9. \frac{3x}{x^2-6x+8} - \frac{5}{x-2}$$

$$10. \frac{5x}{x-3} - \frac{2}{3-x}$$

$$\frac{-2x+20}{(x-2)(x-4)}$$

$$\frac{5x+2}{x-3}$$

Chapter 9*(Lesson 9-6)***For Questions 1-4, solve each equation or inequality.**

1. $\frac{6}{x+2} = \frac{x-7}{x+2} + \frac{1}{4}$

2. $\frac{t-5}{t-3} = \frac{t-3}{t+3} + \frac{1}{t-3}$

3. $3 + \frac{2}{t} \leq \frac{8}{t}$

4. $\frac{6}{m+5} \leq 2$

1. 10

2. 9

3. 2

4. -2

Simplify each expression.

1. $\frac{24rs^2}{-8s} - 3rs$

2. $\frac{3xy^3}{5a^2} \div \frac{6x^2y}{a^3} \cdot \frac{y^2a}{10x}$

3. $\frac{3b^2 - 7b + 2}{b^2 + 3b - 10} \cdot \frac{3b-1}{b+5}$

4. $\frac{2x^2 - 7x - 4}{x^2 - 2x - 8} \cdot \frac{x^2 + 7x + 10}{x^2 + x - 20}$

5. $\frac{3p^2 - 3p}{4p + 4} \cdot \frac{6p^2 - 6p}{p^2 + p}$

$\frac{p}{8}$

$\frac{2x+1}{x-4}$

6. **Standardized Test Practice** For what value(s) of x is the expression $\frac{8x}{(4-x)(x^2-1)}$ undefined?

$x \neq -1, 1, 4$

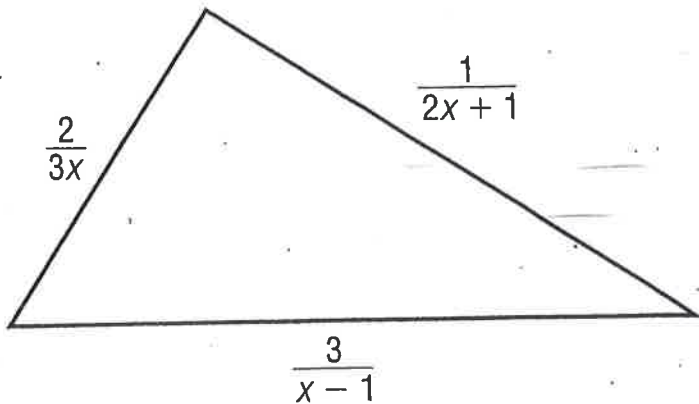
Simplify each expression.

2. $\frac{3}{mn} + \frac{4}{5m} = \frac{15+4n}{5mn}$

3. $\frac{x+5}{2x-12} - \frac{x+2}{3x-18} = \frac{x+1}{6(x-6)}$

4. Find the perimeter of the triangle. Express in simplest form.

$\frac{25x^2+4x-2}{(x-1)(2x+1)(3x)}$



5. **Standardized Test Practice** Which is the sum of $\frac{x-2}{6}$ and $\frac{y-1}{2}$?

(A) $\frac{2x + 3y - 5}{12}$

(B) $\frac{x + 3y - 5}{6}$

(C) $\frac{2x + y - 5}{12}$

(D) $\frac{x + y - 3}{6}$

B

de



5-Minute Check

Transparency 9-7

(from Lesson 9-6)

Solve each equation or inequality.

1. $\frac{d+3}{d} = \frac{4}{5}$ -15

2. $\frac{2}{y^2-1} = \frac{1}{y^2+y-2}$ -3

3. $\frac{4}{3a} + \frac{2}{a} = \frac{1}{3}$ 10

