

Algebra

Activity 1d - Multiplying and Dividing Fractions

1. (a) Multiply $\frac{2}{3} \cdot \frac{4}{5}$

(b) Divide $\frac{4}{9} \div \frac{2}{5}$

(c) Divide $\frac{4}{9} \div 3$

(d) Multiply (it may be better to not use a calculator) $\frac{6}{11} \cdot \frac{22}{18}$

(e) Describe the process to multiply fractions.

(f) Describe the process to divide fractions.

2. Simplify

(a)

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

(b)

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

(c)

$$\frac{x-2}{4x} \cdot \frac{12x}{x^2-4x+4}$$

(d)

$$\frac{x+3}{x-5} \div \frac{3x+9}{x+2}$$

(e)

$$\frac{x^3-9x}{x^2-5x+6} \div \frac{x(x+3)(x-2)}{x+4}$$

(f)

$$\frac{\frac{x+3}{x-5}}{\frac{3x+1}{x-5}}$$