

## Section 6.3 Focus Exercises

1. Apply the indicated operation. Simplify wherever possible.

a)  $\frac{-12p^3}{5m^2} \cdot \frac{10m}{4p^3}$

b)  $\frac{8a}{9b^4} \div \frac{4a}{15b^2}$

c)  $\frac{x^2 - 3x}{5x} \div \frac{x^2 - 9}{10}$

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

e)  $\frac{w^2 - 4}{2w - 8} \div \frac{2w + 4}{w - 4}$

f)  $\frac{x^2 - 25}{4x + 20} \cdot \frac{4x}{x^2 - 5x}$

g)  $\frac{y^2 - y - 6}{y + 4} \cdot \frac{1}{y + 2}$

h)  $\frac{x^2 + 6x + 8}{x^2 - 16} \div \frac{x + 2}{2x - 8}$

2. Apply the indicated operation. Simplify wherever possible.

a)  $\frac{5x + 10}{6x^2 - 3x} \div \frac{x^2 + x - 2}{4x - 2}$

b)  $\frac{x^2 - 9x + 18}{x^2 - 11x + 30} \cdot \frac{4x^2 - 20x}{x^2 - 9}$

c)  $\frac{2x}{4 - x} \cdot \frac{x - 4}{x + 2}$

d)  $\frac{x^2 - 5x}{2x + 2} \div \frac{25 - x^2}{x^2 - 1}$

e)  $\frac{5x + 5}{3 + x} \cdot \frac{3x + 9}{1 - x^2}$

f)  $\frac{49 - x^2}{x^2 + 7x + 12} \div \frac{14 - 2x}{4 + x}$