

## Section 6.5 Focus Exercise Answers

1. a)  $\frac{15x}{24x^3}$  and  $\frac{4x+4}{24x^3}$       b)  $\frac{15x^2+5x}{5x(x+4)}$  and  $\frac{9x+36}{5x(x+4)}$
- c)  $\frac{x^2-2x-8}{x(x-4)(x+5)}$  and  $\frac{3x^2+x}{x(x-4)(x+5)}$
- d)  $\frac{x^2-3x+2}{(x+2)(x-2)^2}$  and  $\frac{x^2+5x+6}{(x+2)(x-2)^2}$
2. a)  $\frac{6x-24}{x(x-4)}$  and  $\frac{x^2}{x(x-4)}$       b)  $\frac{x+1}{x^2-2x}$  and  $\frac{6x-12}{x^2-2x}$
- c)  $\frac{x^2}{x(x+2)(x-2)}$  and  $\frac{3x-6}{x(x+2)(x-2)}$
- d)  $\frac{x^2+x}{x(x+4)(x-2)}$  and  $\frac{x-2}{x(x+4)(x-2)}$
3. a)  $\frac{8x+9}{12x^2}$       b)  $\frac{(x-6)(x+4)}{x(x+12)}$
- c)  $\frac{3x^2+4x-3}{(x-1)(x+1)}$       d)  $\frac{(x+3)}{x}$  *or*  $\frac{x+3}{x}$
- e)  $\frac{x-1}{x-3}$       f)  $\frac{x-6}{3x}$
4. a)  $\frac{(x-6)}{x(x+6)}$       b)  $\frac{3}{(x-5)(x-2)}$
- c)  $\frac{2}{x+3}$       d)  $\frac{(x+6)}{x}$  *or*  $\frac{x+6}{x}$