

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* $\frac{x+6}{x}$