

• If you have any difficulty with these solutions, please contact your teacher before continuing.

Page 233, Your Turn

$$\frac{12x^3}{3x^2+6x} \cdot \frac{4x^3+8x^2}{5}$$

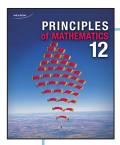
$$= \frac{12x^3}{3x(x+2)} \cdot \frac{4x^2(x+2)}{5}$$

$$=\frac{48x^5(x+2)}{15x(x+2)}$$

$$=\frac{3x(16x^4)(x+2)}{3x(5)(x+2)}$$

$$=\frac{3x(16x^4)(x+2)}{3x(5)(x+2)} \checkmark \checkmark$$

$$=\frac{16x^4}{5} \quad \checkmark \qquad x \neq 0, -2 \quad \checkmark$$



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Page 235, Your Turn

$$\frac{x^3 + x^2}{16} \div \frac{x^2 + x}{20x - 10}$$

$$= \frac{x^3 + x^2}{16} \times \frac{20x - 10}{x^2 + x}$$

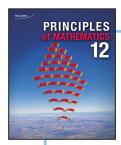
$$= \frac{x^2(x+1)}{16} \times \frac{10(2x-1)}{x(x+1)}$$

$$=\frac{10x^2(x+1)(2x-1)}{16x(x+1)}$$

$$=\frac{2x(5x)(x+1)(2x-1)}{2x(8)(x+1)}$$

$$= \frac{2x(5x)(x+1)(2x-1)}{2x(8)(x+1)} \checkmark \checkmark$$

$$= \frac{5x(2x-1)}{8} \quad x \neq \frac{1}{2}, 0, -1 \quad \checkmark$$



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Page 236, Your Turn

$$\frac{4x^2 - 1}{x + 2} \div \frac{4x^2 + 2x}{8x^2 - 32}$$

$$= \frac{4x^2 - 1}{x + 2} \times \frac{8x^2 - 32}{4x^2 + 2x}$$

$$= \frac{4x^2 - 1}{x + 2} \times \frac{8(x^2 - 4)}{2x(2x + 1)}$$

$$= \frac{(2x-1)(2x+1)}{x+2} \times \frac{8(x-2)(x+2)}{2x(2x+1)}$$

$$= \frac{8(2x-1)(2x+1)(x-2)(x+2)}{2x(x+2)(2x+1)} \checkmark$$

$$= \frac{\sqrt[4]{(2x-1)(2x+1)(x-2)(x+2)}}{\sqrt[4]{2x(x+2)(2x+1)}}$$

$$= \frac{4(2x-1)(x-2)}{x} \checkmark x \neq -2, 2, 0, \frac{-1}{2} \checkmark$$