

Divide Polynomial by Monomial
or Perform each Division

$$\frac{24x^5 + 12x^3 - 18x^2}{6x^2}$$

$$\begin{array}{r} 4 \quad 2 \quad 3 \\ \cancel{24}x^{\cancel{5}} + \cancel{12}x^{\cancel{3}} - \cancel{18}x^{\cancel{2}} \\ \underline{6x^2} \quad \underline{6x^2} \quad \underline{6x^2} \end{array}$$

$$4x^3 + 2x - 3$$

$$\frac{12x^8 + 30x^5 - 18x^3 + x}{-6x}$$

$$\begin{array}{r} 2 \quad 5 \quad 4 \quad 3 \quad 2 \\ \cancel{12}x^{\cancel{8}} + \cancel{30}x^{\cancel{5}} - \cancel{18}x^{\cancel{3}} + \cancel{x} \\ \underline{-6x} \quad \underline{-6x} \quad \underline{-6x} \quad \underline{-6x} \end{array}$$

$$-2x^7 - 5x^4 + 3x^2 - \frac{1}{6}$$

$$\frac{35x^2 - 21x - 7}{7}$$

$$\begin{array}{r} 5 \quad 3 \\ \cancel{35}x^{\cancel{2}} - \cancel{21}x - \cancel{7} \\ \underline{7} \quad \underline{7} \quad \underline{7} \end{array}$$

$$5x^2 - 3x - 1$$

$$\frac{-28y^4 + 12y^2 - 4y}{4y}$$

$$\begin{array}{r} 7 \quad 3 \\ \cancel{-28}y^{\cancel{4}} + \cancel{12}y^{\cancel{2}} - \cancel{4}y \\ \underline{4y} \quad \underline{4y} \quad \underline{4y} \end{array}$$

$$-7y^3 + 3y - 1$$

$$\frac{35p^4 + 17p^3}{10p}$$

$$\begin{array}{r} 7 \quad 3 \\ \cancel{35}p^{\cancel{4}} + \cancel{17}p^{\cancel{3}} \\ \underline{2 \cancel{10}p} \quad \underline{10p} \end{array}$$

$$\frac{7p^3}{2} + \frac{17p^2}{10}$$

$$\frac{30x^2 - 20x + 2}{x}$$

$$\begin{array}{r} 30x^{\cancel{2}} - \cancel{20}x + \cancel{2} \\ \underline{x} \quad \underline{x} \quad \underline{x} \end{array}$$

$$30x - 20 + \frac{2}{x}$$

$$\frac{12q^8r^5 - 20q^3r + 24q^2r - 8qr}{4q^2r}$$

$$\begin{array}{r} 3 \quad 6 \quad 4 \\ \cancel{12}q^{\cancel{8}}r^{\cancel{5}} \\ \hline 4q^{\cancel{2}}r^{\cancel{1}} \end{array} \quad \begin{array}{r} 5 \\ \cancel{20}q^{\cancel{3}}r \\ \hline 4q^{\cancel{2}}r \end{array} \quad \begin{array}{r} 6 \\ \cancel{24}q^{\cancel{2}}r \\ \hline 4q^{\cancel{2}}r \end{array} \quad \begin{array}{r} 2 \\ \cancel{8}qr \\ \hline 4q^{\cancel{1}}r \end{array}$$

$$3q^6r^4 - 5q + 6 - \frac{2}{q}$$

Mixed Practice: Perform each Division

$$\frac{32k^4 + 72k^2 - 12k}{8k^3}$$

$$1. \quad \begin{array}{r} 8k^3 \\ \cancel{32}k^{\cancel{4}} + \cancel{72}k^{\cancel{2}} - \cancel{12}k \\ \hline 8k^{\cancel{3}} \quad 8k^{\cancel{3}} \quad 28k^{\cancel{3}2} \end{array}$$

$$4k + \frac{9}{k} - \frac{3}{2k^2}$$

$$2) \quad \frac{24x^7 - 18x^5 + 6x^3}{-3x^2}$$

$$\begin{array}{r} 8 \quad 5 \quad 6 \quad 3 \quad 2 \\ \cancel{24}x^{\cancel{7}} - \cancel{18}x^{\cancel{5}} + \cancel{6}x^{\cancel{3}} \\ \hline -3x^{\cancel{2}} \quad -3x^{\cancel{2}} \quad -3x^{\cancel{2}} \end{array}$$

$$-8x^5 + 6x^3 - 2x$$

$$3) \quad \frac{10x^{10} - 6x^5 + 8x^3 - x}{2x}$$

$$\begin{array}{r} 5 \quad 9 \quad 3 \quad 4 \quad 4 \quad 2 \\ \cancel{10}x^{\cancel{10}} - \cancel{6}x^{\cancel{5}} + \cancel{8}x^{\cancel{3}} - \cancel{x} \\ \hline 2x \quad 2x \quad 2x \quad 2x \end{array}$$

$$5x^9 - 3x^4 + 4x^2 - \frac{1}{2}$$