

Today's  
Extrahelp.

$$5 + \frac{-2x - 10}{x^2 + x}$$

$$x^2 + x \overline{) 5x^2 + 3x - 10}$$

$$\begin{array}{r} - 5x^2 + 5x \\ \hline -2x - 10 \end{array}$$

$$\frac{2x^4}{x} =$$

$$2x^3 + 7x^2 + 7x + 19 + \frac{28}{x-2}$$

$$x-2 \overline{) 2x^4 + 3x^3 - 7x^2 + 5x - 10}$$

$$\begin{array}{r} - 2x^4 + 4x^3 \\ \hline \end{array}$$

$$\begin{array}{r} 7x^3 - 7x^2 \\ - 7x^3 + 14x^2 \\ \hline \end{array}$$

$$\begin{array}{r} 7x^2 + 5x \\ - 7x^2 + 14x \\ \hline \end{array}$$

$$\begin{array}{r} 19x - 10 \\ - 19x + 38 \\ \hline \end{array}$$

28

$$8x^2 - 22x + 59 + \frac{-175}{x+3}$$

$$x+3 \overline{) 8x^3 + 2x^2 - 7x + 2}$$

$$\begin{array}{r} - 8x^3 + 24x^2 \\ \hline \end{array}$$

$$\begin{array}{r} - 22x^2 - 7x \\ + 22x^2 + 66x \\ \hline \end{array}$$

$$\begin{array}{r} 59x + 2 \\ - 59x + 177 \\ \hline -175 \end{array}$$

$$\frac{8x^3}{x} = 8x^2$$



$$\begin{array}{r}
 3x^2 + 16x + 114 + \frac{788}{x-7} \\
 x-7 \overline{) 3x^3 - 5x^2 + 2x - 10} \\
 \underline{- 3x^3 + 21x^2} \quad \downarrow \\
 16x^2 + 2x \\
 \underline{- 16x^2 + 112x} \quad \downarrow \\
 114x - 10 \\
 \underline{- 114x + 798} \\
 788
 \end{array}$$

$$\begin{array}{r}
 x^4 - x^3 + 4x^2 - 4x + 14 + \frac{-19}{x+1} \\
 x+1 \overline{) x^5 + 0x^4 + 3x^3 + 0x^2 + 10x - 5} \\
 \underline{- x^5 + x^4} \quad \downarrow \\
 -x^4 + 3x^3 \\
 \underline{+ x^4 + x^3} \quad \downarrow \\
 4x^3 + 0x^2 \\
 \underline{- 4x^3 + 4x^2} \quad \downarrow \\
 -4x^2 + 10x \\
 \underline{+ 4x^2 + 4x} \quad \downarrow \\
 14x - 5 \\
 \underline{- 14x + 14} \\
 -19
 \end{array}$$

$$4x^3 + 3x^2 + 8x + 9 + \frac{30}{x-2}$$

$$\begin{array}{r}
 x-2 \overline{) 4x^4 - 5x^3 + 2x^2 - 7x + 12} \\
 \underline{-4x^4 + 8x^3} \phantom{+ 2x^2 - 7x + 12} \\
 3x^3 + 2x^2 \phantom{- 7x + 12} \\
 \underline{-3x^3 + 6x^2} \phantom{- 7x + 12} \\
 8x^2 - 7x + 12 \\
 \underline{-8x^2 + 16x} \\
 9x + 12 \\
 \underline{-9x + 18} \\
 30
 \end{array}$$

$$\begin{array}{r}
 2 \overline{) 4 \ -5 \ 2 \ -7 \ 12} \\
 \underline{\phantom{2} 8 \ 6 \ 16 \ 18} \\
 4 \ 3 \ 8 \ 9 \ 30
 \end{array}$$

$$4x^3 + 3x^2 + 8x + 9 + \frac{30}{x-2}$$

$$10x^4 + 8x^3 - 6x^2 + 10x - 20 \div (x - \frac{1}{2})$$

$$\begin{array}{r}
 \frac{1}{2} \overline{) 10 \quad 8 \quad -6 \quad 10 \quad 20} \\
 \phantom{\frac{1}{2} \overline{) }} \underline{\phantom{10} 5 \quad 6.5 \quad .25 \quad 5.125} \\
 10 \quad 13 \quad .5 \quad 10.25 \quad 25.125
 \end{array}$$

$$10x^3 + 13x^2 + \frac{1}{2}x + \frac{41}{4} + \frac{201/8}{x - \frac{1}{2}}$$