

9-12-17 1<sup>st</sup> Trig

$$\begin{array}{r} 21\frac{4}{8} \\ 8 \overline{) 172} \\ \underline{-16} \phantom{0} \\ 12 \\ \underline{-8} \\ 4 \end{array}$$

$$\begin{array}{r} x + 5 + \frac{-15}{x+2} \\ x+2 \overline{) x^2 + 7x - 5} \\ \underline{-(x^2 + 2x)} \phantom{0} \\ 5x - 5 \\ \underline{-(5x + 10)} \\ -15 \end{array}$$

$$\begin{array}{r} x + 7 + \frac{-22}{x+3} \\ x+3 \overline{) x^2 + 10x - 1} \\ \underline{-(x^2 + 3x)} \phantom{0} \\ 7x - 1 \\ \underline{-(7x + 21)} \\ -22 \end{array}$$

$$\begin{array}{r} x + 3 + \frac{-2}{x+2} \\ x+2 \overline{) x^2 + 5x + 4} \\ \underline{-(x^2 + 2x)} \phantom{0} \\ 3x + 4 \\ \underline{-(3x + 6)} \\ -2 \end{array}$$

$$\textcircled{1} \quad x+2 \overline{) x^2 + 9x + 2}$$

$$\begin{array}{r} x + 7 + \frac{-12}{x+2} \\ \underline{-(x^2 + 2x)} \phantom{+ 2} \\ 7x + 2 \\ \underline{-(7x + 14)} \\ -12 \end{array}$$

$$\textcircled{2} \quad x-3 \overline{) x^2 + 5x + 7}$$

$$\begin{array}{r} x + 8 + \frac{31}{x-3} \\ \underline{-(x^2 - 3x)} \\ 8x + 7 \\ \underline{-(8x - 24)} \\ 31 \end{array}$$

$$\textcircled{3} \quad x+7 \overline{) x^2 - 2x - 1}$$

$$\begin{array}{r} x - 9 + \frac{62}{x+7} \\ \underline{-(x^2 + 7x)} \phantom{- 1} \\ -9x - 1 \\ \underline{-(-9x - 63)} \\ 62 \end{array}$$

$$\textcircled{4} \quad x-1 \overline{) x^2 - 5x - 2}$$

$$\begin{array}{r} x - 4 + \frac{-6}{x-1} \\ \underline{-(x^2 - 1x)} \phantom{- 2} \\ -4x - 2 \\ \underline{-(-4x + 4)} \\ -6 \end{array}$$

$$\textcircled{5} \quad x+3 \overline{) x^3 + 10}$$

Rewrite as

$$\begin{array}{r}
 x^2 - 3x + 9 + \frac{-17}{x+3} \\
 x+3 \overline{) x^3 + 0x^2 + 0x + 10} \\
 \underline{-(x^3 + 3x^2)} \\
 -3x^2 + 0x \\
 \underline{-(-3x^2 - 9x)} \\
 9x + 10 \\
 \underline{-(9x + 27)} \\
 -17
 \end{array}$$

$$\begin{array}{r}
 3 \\
 \textcircled{6} \quad 2x-1 \overline{) 6x-3} \\
 \underline{-(6x-3)} \\
 0
 \end{array}$$

9-12-17 3<sup>rd</sup> Trig

$$\begin{array}{r} 21\frac{3}{4} \\ 8 \overline{) 175} \\ \underline{-16} \phantom{0} \\ 15 \\ \underline{-8} \\ 7 \end{array}$$

$$\textcircled{1} \quad x+3 \overline{) x^2 + 5x + 7} \quad x + 2 + \frac{1}{x+3}$$
$$\begin{array}{r} \underline{-(x^2 + 3x)} \phantom{0} \\ 2x + 7 \\ \underline{-(2x + 6)} \\ 1 \end{array}$$

$$\textcircled{2} \quad x+5 \overline{) x^2 + 7x + 2} \quad x + 2 + \frac{-8}{x+5}$$
$$\begin{array}{r} \underline{-(x^2 + 5x)} \\ 2x + 2 \\ \underline{-(2x + 10)} \\ -8 \end{array}$$

$$\textcircled{3} \quad x+4 \overline{) x^2 + 9x + 5} \quad x + 5 + \frac{-15}{x+4}$$
$$\begin{array}{r} \underline{-(x^2 + 4x)} \\ 5x + 5 \\ \underline{-(5x + 20)} \\ -15 \end{array}$$

$$\begin{array}{r} \textcircled{4} \quad x+2 \quad \overline{) \begin{array}{l} x^2 + 3x + 11 \\ - (x^2 + 2x) \\ \hline x + 11 \\ - (x + 2) \\ \hline 9 \end{array}} \\ \end{array}$$

$$\begin{array}{r} \textcircled{5} \quad x-3 \quad \overline{) \begin{array}{l} x^2 - 7x + 2 \\ - (x^2 - 3x) \\ \hline -4x + 2 \\ - (-4x + 12) \\ \hline -10 \end{array}} \\ -7x + 3x \end{array}$$

$$\textcircled{6} \quad x+4 \quad \overline{) \quad x^3 + 5}$$

Rewrite

$$\begin{array}{r} x+4 \quad \overline{) \begin{array}{l} x^3 + 0x^2 + 0x + 5 \\ - (x^3 + 4x^2) \\ \hline -4x^2 + 0x \\ - (-4x^2 - 16x) \\ \hline 16x + 5 \\ - (16x + 64) \\ \hline -59 \end{array}} \\ \end{array}$$

$$\textcircled{7} \quad 2x-1 \overline{) \overset{3}{6x-3}} \\ \underline{6x-3} \\ 0$$

$$\textcircled{8} \quad x+2 \overline{) x^2+7x+10} \\ \underline{-(x^2+2x)} \\ 5x+10 \\ \underline{5x+10} \\ 0$$

$$(x+2)(x+5)$$

$$x^2+7x+10$$

9-12-17 4<sup>th</sup> Trig

$$\begin{array}{r} 22 + \frac{3}{7} \\ 7 \overline{) 157} \\ \underline{-14} \\ 17 \\ \underline{-14} \\ 3 \end{array}$$

$$\textcircled{1} \quad x+2 \overline{) x^2 + 5x + 7} \quad \begin{array}{l} x + 3 + \frac{1}{x+2} \\ \underline{-(x^2 + 2x)} \\ 3x + 7 \\ \underline{-(3x + 6)} \\ 1 \end{array}$$

$$\textcircled{2} \quad x+4 \overline{) x^2 + 6x + 8} \quad \begin{array}{l} x + 2 \\ \underline{-(x^2 + 4x)} \\ 2x + 8 \\ \underline{-(2x + 8)} \\ 0 \end{array}$$

$$\begin{array}{l} (x+4)(x+2) \\ x^2 + 6x + 8 \end{array}$$

$$\textcircled{3} \quad x+2 \overline{) x^2 + 9x + 3} \quad \begin{array}{l} x + 7 + \frac{-11}{x+2} \\ \underline{-(x^2 + 2x)} \\ 7x + 3 \\ \underline{-(7x + 14)} \\ -11 \end{array}$$

$$\begin{array}{r}
 \textcircled{4} \quad x+5 \overline{) x^2 + 2x + 1} \\
 \underline{-(x^2 + 5x)} \phantom{+ 1} \\
 -3x + 1 \\
 \underline{-(-3x - 15)} \\
 16
 \end{array}$$

$$\begin{array}{r}
 \textcircled{5} \quad x+3 \overline{) x^2 - 4x - 1} \\
 \underline{-(x^2 + 3x)} \phantom{- 1} \\
 -7x - 1 \\
 \underline{-(-7x - 21)} \\
 20
 \end{array}$$

$$\begin{array}{r}
 \textcircled{6} \quad x-2 \overline{) x^2 - 5x - 7} \\
 \underline{-(x^2 - 2x)} \phantom{- 7} \\
 -3x - 7 \\
 \underline{-(-3x + 6)} \\
 -13
 \end{array}$$



$$\textcircled{7} \quad x+2 \overline{) x^3 + 7}$$

Rewrite as

$$\begin{array}{r}
 x^2 - 2x + 4 + \frac{-1}{x+2} \\
 x+2 \overline{) x^3 + 0x^2 + 0x + 7} \\
 \underline{-(x^3 + 2x^2)} \\
 -2x^2 + 0x \\
 \underline{-(-2x^2 - 4x)} \\
 4x + 7 \\
 \underline{-(4x + 8)} \\
 -1
 \end{array}$$

$$\textcircled{8} \quad 2x+3 \overline{) 6x+9}$$

$$\begin{array}{r}
 3 \\
 2x+3 \overline{) 6x+9} \\
 \underline{-(6x+9)} \\
 0
 \end{array}$$

$$\textcircled{9} \quad x+4 \overline{) x^2 + 10}$$

Rewrite

$$\begin{array}{r}
 x - 4 + \frac{26}{x+4} \\
 x+4 \overline{) x^2 + 0x + 10} \\
 \underline{-(x^2 + 4x)} \\
 -4x + 10 \\
 \underline{-(-4x - 16)} \\
 26
 \end{array}$$