

Extra Example section 3-5 Oct. 14

Find the zeros ^(twice) ; -1, -2, 1/3 $\frac{c}{b} = \frac{\pm(1,2)}{\pm(1,3)}$

$f(x) = 3x^4 + 11x^3 + 11x^2 + x - 2$ ^{SCRATCH} $\frac{c}{b} = \pm(1, \frac{1}{3}, 2, \frac{2}{3})$

$$\begin{array}{r|rrrrr} 1 & 3 & 11 & 11 & 1 & -2 \\ \hline & & & & & \\ \hline (-1) & 3 & 11 & 11 & 1 & -2 \\ & -3 & -8 & -3 & 2 & \\ \hline & 3 & 8 & 3 & -2 & \\ & & & & & \\ \hline & 3x^3 & + 8x^2 & + 3x & - 2 & \end{array}$$

$$\begin{array}{r|rrrr} 3 & 14 & 31 & 60 \\ \hline & & & \\ \hline -2 & 3 & 8 & 3 & -2 \\ & -6 & -4 & 2 & \\ \hline & -2 & 2 & -1 & \\ & & & & \\ \hline & 3x^2 & + 2x & - 1 & \\ & (3x - 1)(x + 1) & & & \\ & 1/3, -1 & & & \end{array}$$

put work leading to zeros on HW paper