1.3 Factoring

NOTES

PRE-CALCULUS

Write your questions here!

$6v + 60$

$= 6(v + 10)$

$8x^2 + 48x$

$= 8x(x + 6)$

$x^2 + 9x + 8$

$= (x + 8)(x + 1)$

$x^2 - 16$

$= (x - 4)(x + 4)$

$3x^2 - 75$

$= 3(x^2 - 25)$

$= 3(x - 5)(x + 5)$

$6x^2 + 7x + 2$

$12x^2 \mid 7x$

$3x, 4x$

$= 6x^2 + 3x + 4x + 2$

$= (6x^2 + 3x) + (4x + 2)$

$= 3x(2x + 1) + 2(2x + 1)$

$= (2x + 1)(3x + 2)$

$-6x^2 - 9x + 60$

mult $-40x^2$ | Add $3x$

$= -3(2x^2 + 3x - 20)$

$= -3[(2x^2 + 8x) + (-5x - 20)]$

$= -3[2x(x + 4) - 5(x + 4)]$

$= -3(x + 4)(2x - 5)$

$6x^2 - x - 2 = 0$

$(6x^2 - 4x) + (3x - 2) = 0$

$2x(3x - 2) + 1(3x - 2) = 0$

$(3x - 2)(2x + 1) = 0$

$3x - 2 = 0$ | $2x + 1 = 0$

$3x = 2$ | $2x = -1$

$x = 2/3$ | $x = -1/2$

$x = -\frac{1}{2}, \frac{2}{3}$

$8x^2 - 10x = -3$

$8x^2 - 10x + 3 = 0$

$(8x^2 - 6x) + (-4x + 3) = 0$

$2x(4x - 3) + -1(4x - 3) = 0$

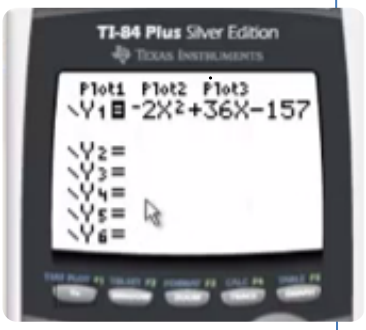
$(4x - 3)(2x - 1) = 0$

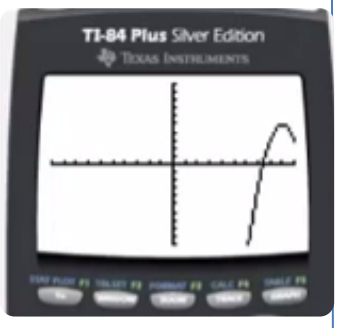
$4x - 3 = 0$ | $2x - 1 = 0$

$4x = 3$ | $2x = 1$

$x = 3/4$ | $x = 1/2$

$x = \frac{1}{2}, \frac{3}{4}$





EQUATION

Find Zeros

Solve

Find x-int

POLYNOMIAL

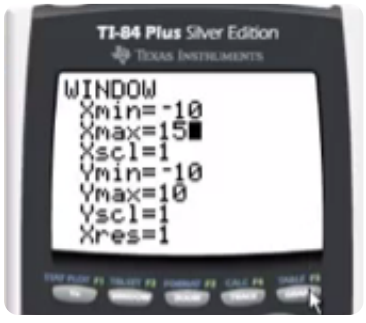
Roots

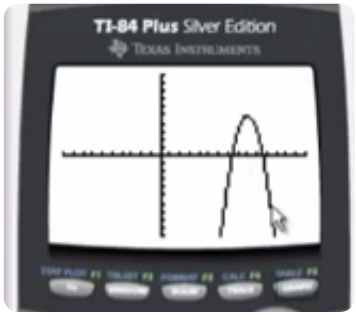
$-2x^2 + 36x = 157$

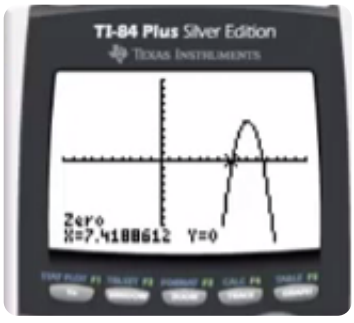
$-2x^2 + 36x - 157 = 0$

USE CALC for practice

$x \approx 7.419, 10.581$







SUMMARY:

Now, summarize your notes here!