

REVIEW

$$x^2 - 5x + 6 = 0$$

$$(x-2)(x-3) = 0 \quad \text{FACTOR (VERB)}$$

FACTORS
(NOUN)

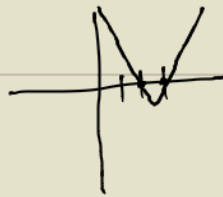
$$x-2=0 \quad x-3=0$$

$$x=2 \quad x=3$$

ANSWERS

"ZEROS"

"ROOTS"



#10

$$f(x) = 2(x-3)(x+1)^2$$

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

$$\cancel{2} \neq 0 \quad x-3=0 \quad x+1=0$$

$$x=3 \quad x=-1 \quad \text{ZEROS}$$

$$1 \quad 2 \quad \text{MULTIPLICITY}$$

$$C \quad T \quad \text{TOUCHES/CROSSES}$$

#11 $f(x) = x^3 + 3x^2 - 4x - 12$

$$x^3 + 3x^2 - 4x - 12 = 0$$

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

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

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

$$x+3=0 \quad x+2=0 \quad x-2=0$$

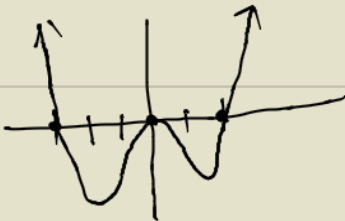
$$x=-3 \quad x=-2 \quad x=2 \quad \text{ZEROS}$$

$$1 \quad 1 \quad 1 \quad \text{MULT}$$

$$C \quad C \quad C \quad \text{T/C}$$

#12 $f(x) = x^4 + x^3 - 6x^2$

UP TO LEFT
UP TO RIGHT



x-INT

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

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

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

$$x=0 \quad x+3=0 \quad x-2=0$$

$$x=0 \quad x=-3 \quad x=2$$

$$2 \quad 1 \quad 1 \quad \text{MULT}$$

y-INT

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