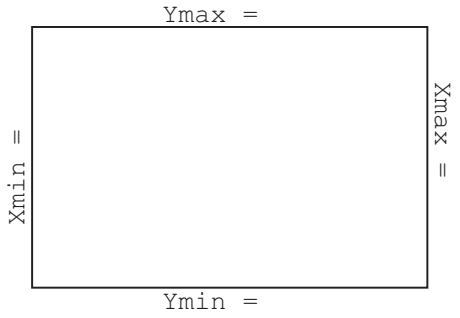
Math 140, College Algebra **name:** _____
Graphing Calculator III: Finding Zeros **date:** _____

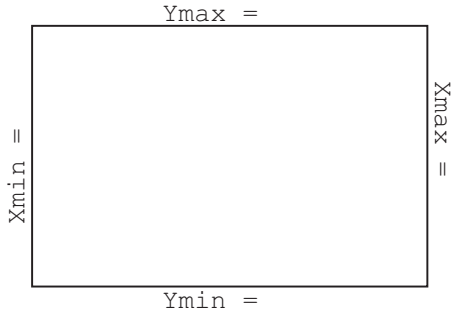
☞ $[-10, 10] \times [-4, 12]$ means `Xmin=-10`, `Xmax=10`, `Ymin=-4`, `Ymax=12`
☞ [CALC] means to press [2nd] [TRACE] to access the CALC menu above the [TRACE] button.

1. For each of the following, (i) enter the function into your calculator, (ii) graph the function in the given window, and (iii) use [CALC] `zero` to find the zeros of the function.

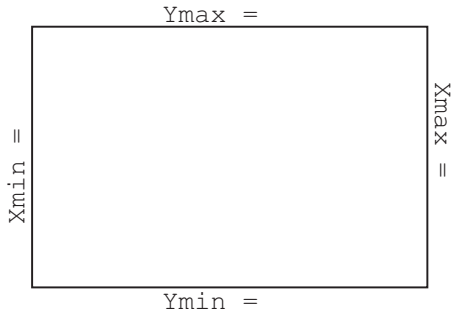
(**a**) $y = 6x^2 + 25x - 9$ $[-7, 2] \times [-35, 15]$



(**b**) $x^2 - 7x - 120$ $[-12, 20] \times [-150, 50]$

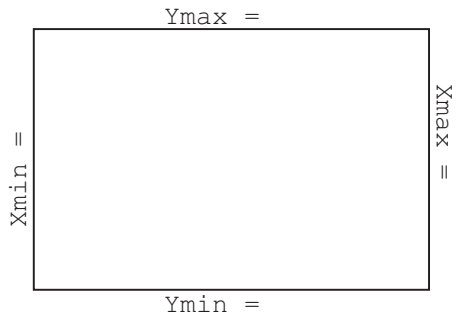


(**c**) $x^3 - x^2 - 17x - 15$ $[-10, 10] \times [-50, 10]$

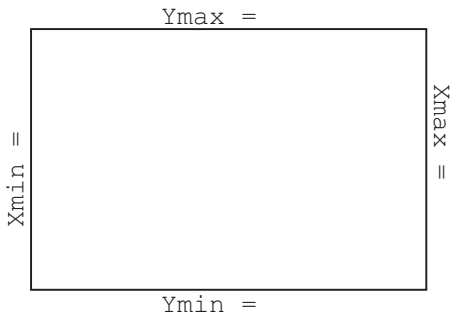


2. For each of the following, find the zeros of the function.

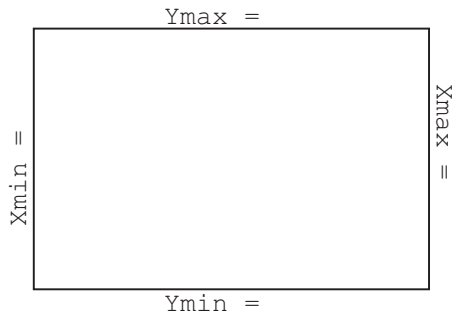
(**a**) $-2x^2 - 19x + 24$ (Hint: There are *two* zeros.)



(**b**) $y = -2x^3 + 19.6x^2 + 59.5x + 24.6$ (Hint: There are *three* zeros.)



(**c**) $y = \dfrac{12x^2 + x - 35}{2x^2 - 7x - 2}$ (Hint: There are *two* x-intercepts; ignore any vertical lines.)



(**d**) $y = \dfrac{3x - 11}{x^2 - 4x - 5}$