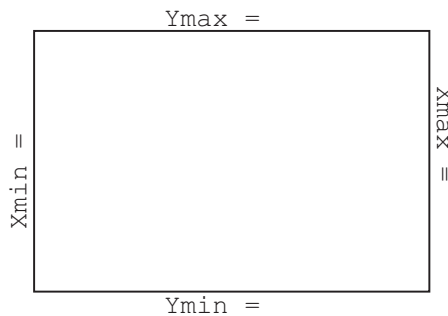


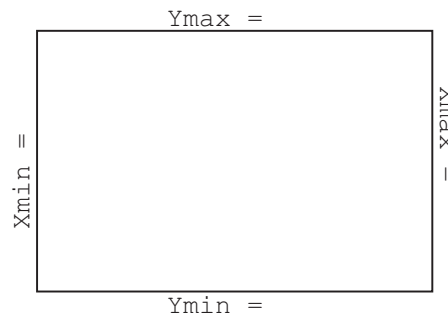
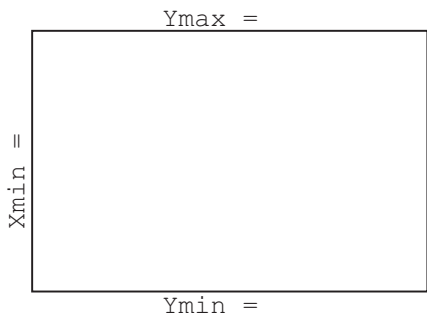
- ☞ $[-10, 10] \times [-4, 12]$ means $X_{\min}=-10$, $X_{\max}=10$, $Y_{\min}=-4$, $Y_{\max}=12$
- ☞ [CALC] means to press 2nd TRACE to access the CALC menu above the TRACE button.

1. For each of the following, (i) enter the functions into your calculator, (ii) graph the functions in the given window, and (iii) use [CALC] **intersect** to find the coordinates of the points of intersection of the functions.

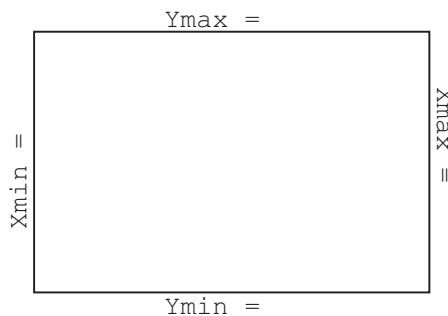
(a)
$$\begin{cases} y_1 = x^2 + 3x - 4 \\ y_2 = \frac{1}{2}x + 1 \end{cases} \quad \text{ZStandard (Hint: There are two intersections.)}$$



(b)
$$\begin{cases} y_1 = 5 + \log 99x + 1 \\ y_2 = -\frac{4}{5}x + 150 \end{cases} \quad [-10, 200] \times [-10, 175], \text{ then } [170, 180] \times [9, 9.5]$$



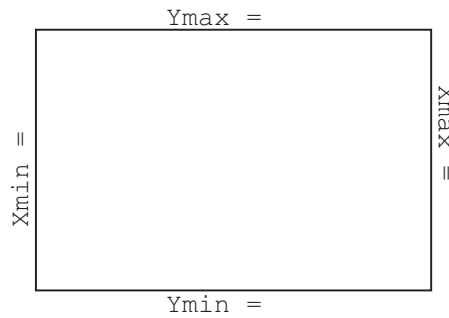
(c)
$$\begin{cases} y_1 = x^3 - x^2 - 17x - 15 \\ y_2 = \frac{1}{2}x^2 - 7 \end{cases} \quad [-10, 10] \times [-10, 15]$$



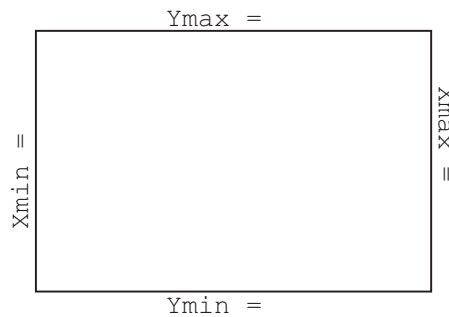
Graphing Calculator II: Finding Intersections

2. For each of the following, find the coordinates of the point(s) of intersection of the given functions.

(a) $\begin{cases} y_1 = 2^x \\ y_2 = -2x \end{cases}$ (Hint: There is *one* intersection.)



(b) $\begin{cases} y_1 = -x^2 + 7 \\ y_2 = x^2 - 5 \end{cases}$



(c) $\begin{cases} y_1 = 0.2x^2 - 5x - 6 \\ y_2 = x^3 + x^2 - 26x + 24 \end{cases}$ (Hint: There are *three* intersections.)

