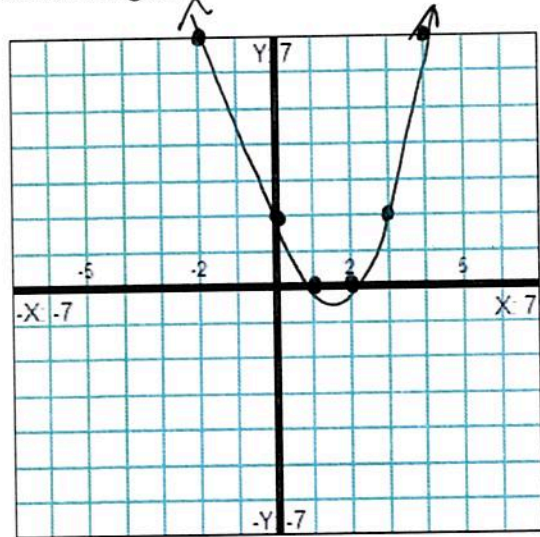


**Instructions:** Show all work. Give exact answers (improper fractions) and do not round unless specifically asked to do so. If you work the problem in your calculator you can write keystrokes to show work for partial credit.

1. Graph the equation  $y = x^2 - 3x + 2$  on the graph on the right. Label any intercepts. Plot at least 5 points. Include values of  $x$  that are both positive and negative.

X	Y
-2	12
-1	7
0	2
1	-0
2	0
3	2
4	7

$$\begin{aligned} (-2)^2 - 3(-2) + 2 &= 4 + 6 + 2 = 12 \\ (-1)^2 - 3(-1) + 2 &= 1 + 4 + 2 = 7 \\ 1^2 - 3(1) + 2 &= 1 - 3 + 2 = -1 \\ 2^2 - 3(2) + 2 &= 4 - 6 + 2 = 0 \end{aligned}$$



2. Graph the inequality  $3x + 2y < 12$  on the graph on the right. Shade appropriately.

$$\begin{aligned} 3x &= 12 \\ x &= 4 \\ 2y &= 12 \\ y &= 6 \end{aligned}$$

$$\begin{aligned} 3(0) + 2(0) \\ 0 &< 12 \\ \text{true} \end{aligned}$$

