# Assignment # 2 Math 135

* Solve each system of equations:

① $\begin{cases} y = 2x - 1 \\ y = -3x + 49 \end{cases}$

② $\begin{cases} y = 2x - 3 \\ 2x + 2y = 24 \end{cases}$

③ $\begin{cases} 3x - 4y = 22 \\ 2x + 4y = 13 \end{cases}$

④ $\begin{cases} 3x - 2y = 18 \\ 2x + 3y = -1 \end{cases}$

⑤ Explain the steps used on graphing calculator in order to solve problem # 1 by graphing.

⑥ What would happen if two lines were parallel? (How many solutions would that system have?)

* Solve each quadratic equation:

⑦ $x^2 + 5x + 6 = 0$

⑧ $x^2 - 3x + 2 = 0$

⑨ $2x^2 + 5x - 3 = 0$

⑩ $6x^2 + 8x - 10 = 3x - 4$

⑪ Solve using the <u>quadratic formula</u>

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

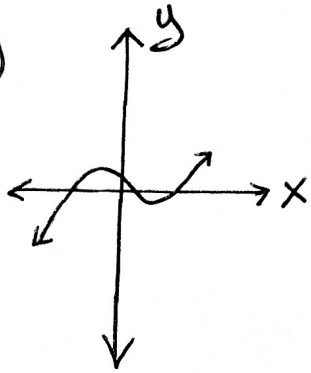
* State if each relation is a function based on the table | graph.

(12)

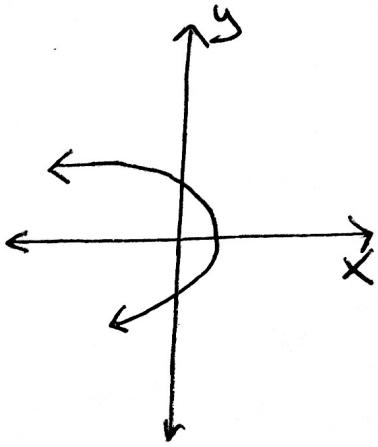
| x | y |
|---|---|
| 1 | 2 |
| 2 | 3 |
| 3 | 2 |
| 4 | 3 |
| 5 | 2 |
| 6 | 3 |

(13) $\{(1,4)(2,3)(-1,5)(2,6)(7,9)\}$

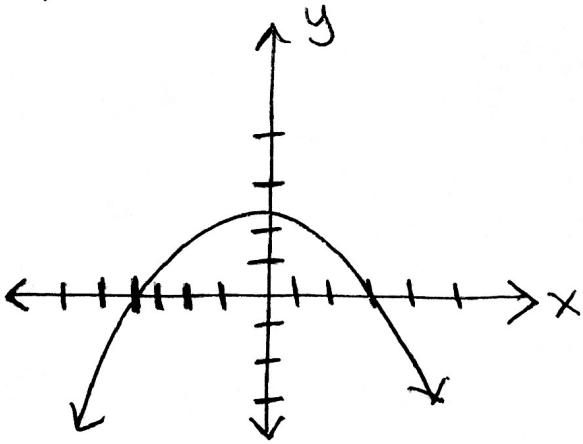
(14)




(15)




(16) Based on the graph shown below what are the approximate zeros of function?




(*) Bonus: If the solutions to a quadratic equation are $x = -3$ and $x = 5$, then what was one possible equation that gives those two solutions.