

10 - 2

**Solving Quadratic
Equations by Graphing**

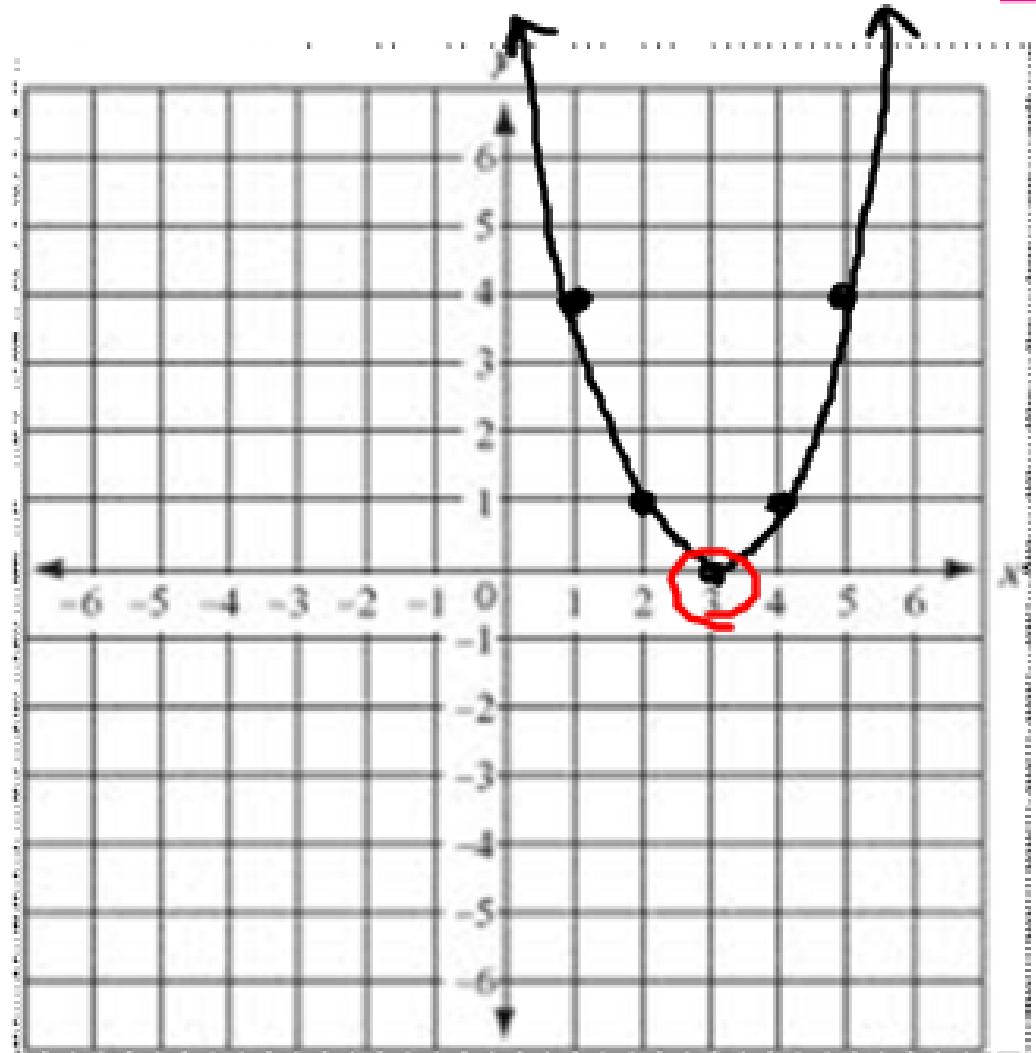
roots: solutions of a quadratic

* x-intercepts ($y=0$)

Ex: Solve $x^2 - 6x + 9 = 0$ by graphing.

one root: 3

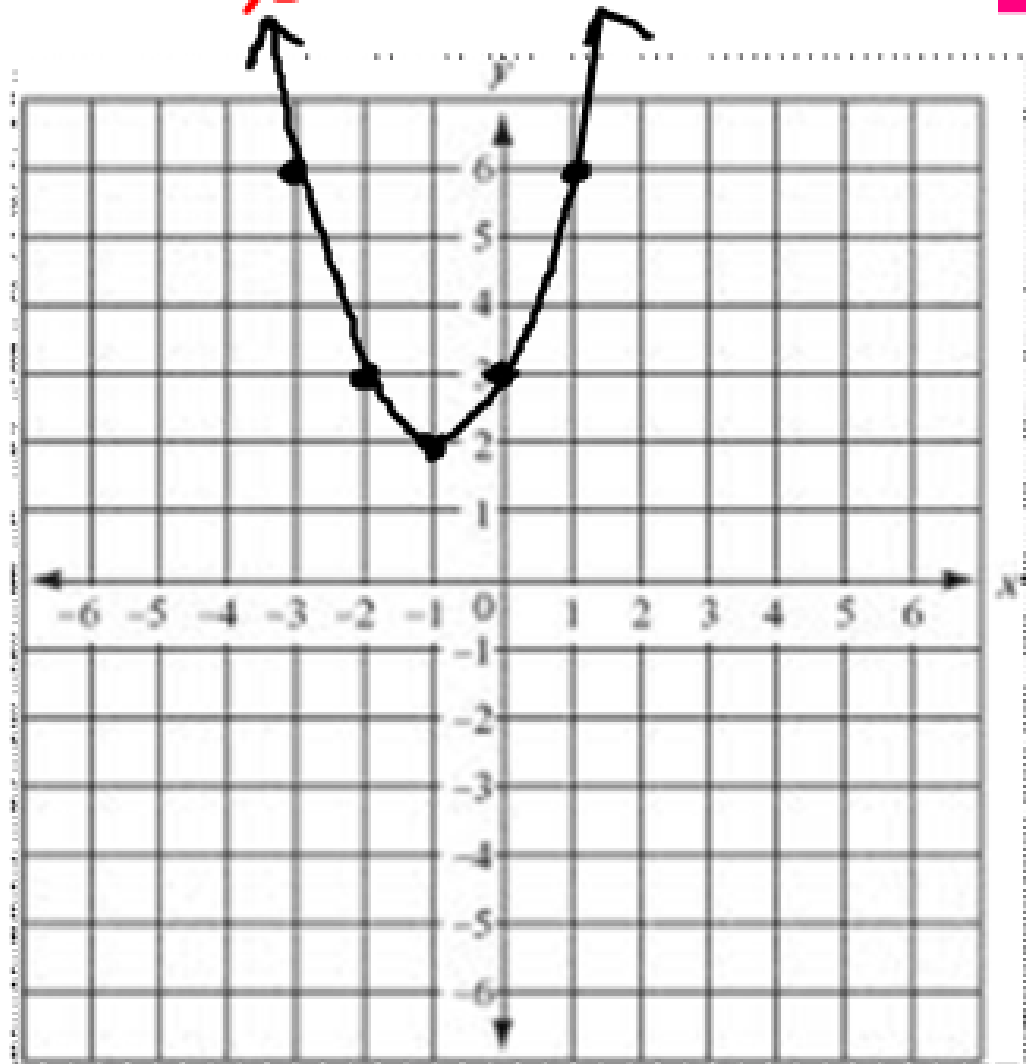
x	y
1	4
2	1
3	0
4	1
5	4



Ex: Solve $x^2 + 2x + 3 = 0$ by graphing.

no real roots \emptyset

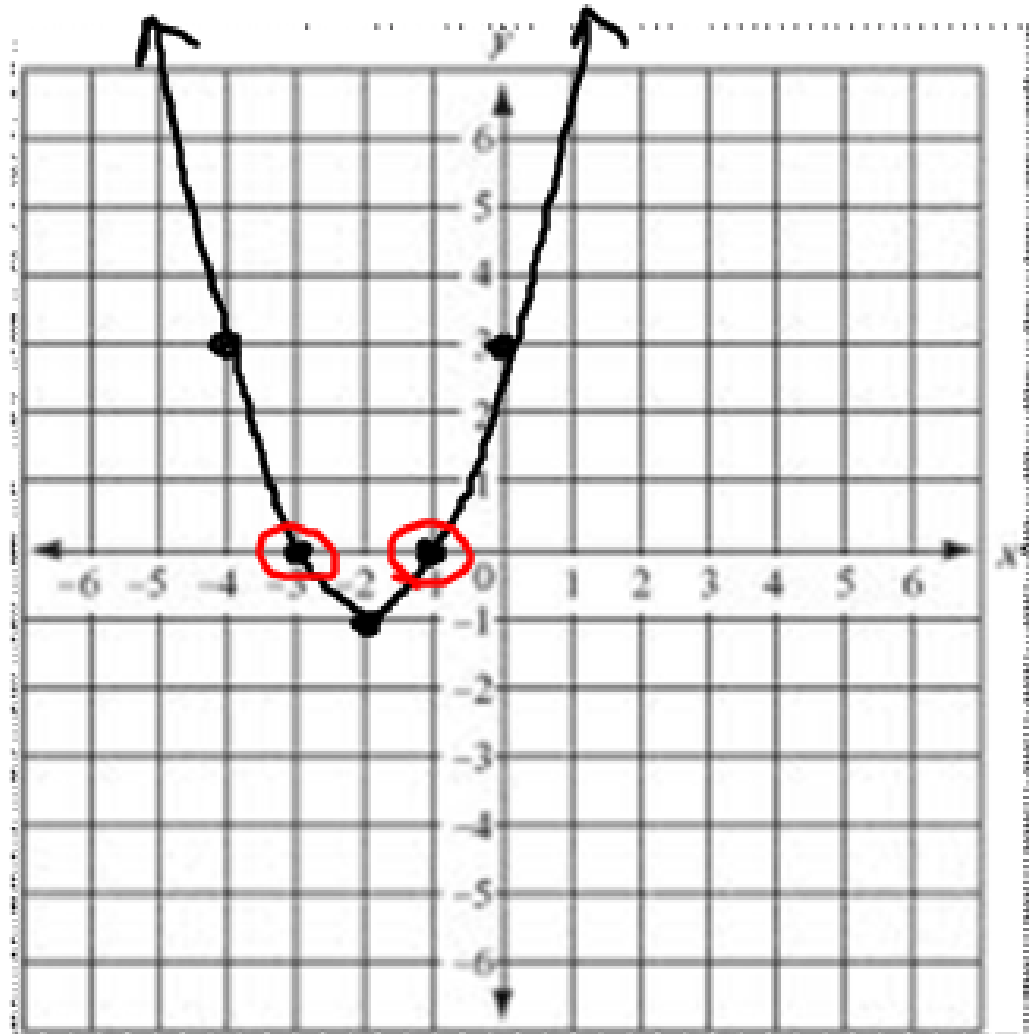
x	y
-3	6
-2	3
-1	2
0	3
1	6



Ex: Solve $x^2 + 4x + 3 = 0$ by graphing.

two roots: -3 and -1

x	y
-4	3
-3	0
-2	-1
-1	0
0	3



Ex: Solve $x^2 + 6x + 7 = 0$ by graphing.

between -4 and -5, between -1 and -2

x	y
-6	7
-5	2
-4	-1
-3	-2
-2	-1
-1	2
0	7

