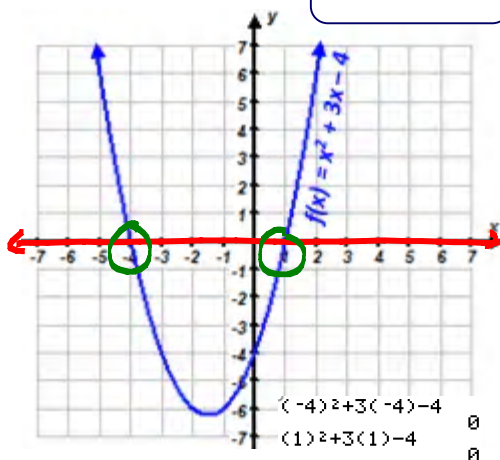


1. Solve the following equations using their graphs.

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

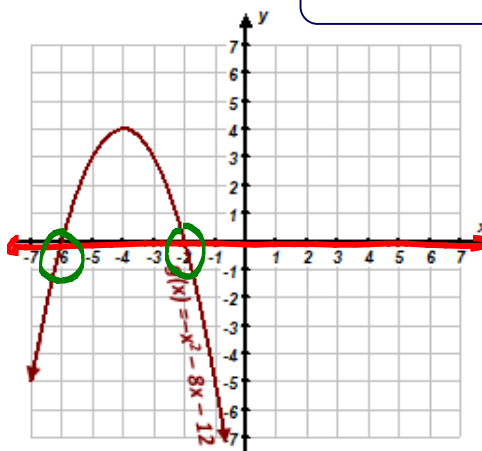
yes

$x = -4$ or 1



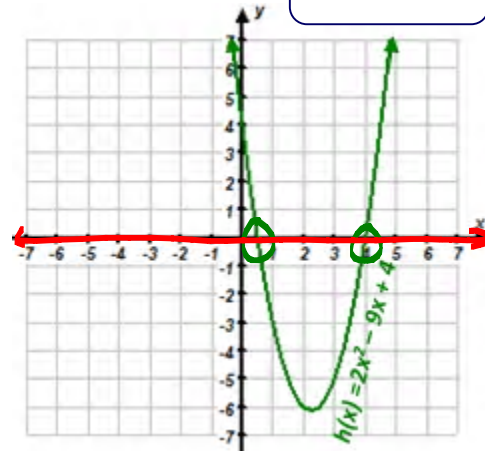
b. $-x^2 - 8x - 12 = 0$

$x = -6$ or -2



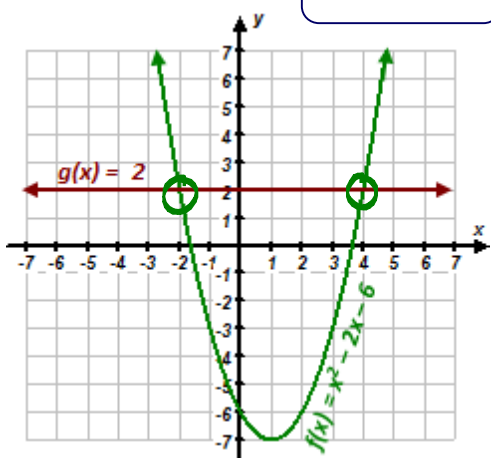
c. $2x^2 - 9x + 4 = 0$

$x = 0.5$ or 4



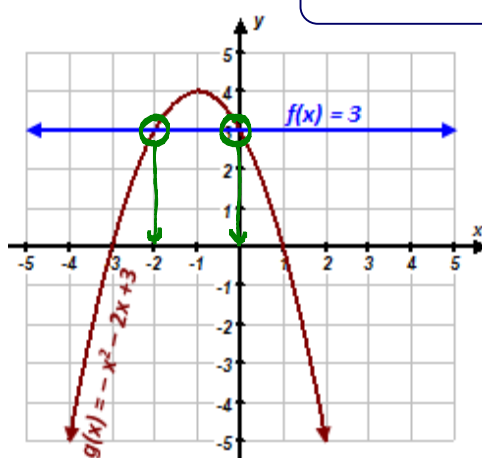
d. $x^2 - 2x - 6 = 2$

$x = -2$ or 4



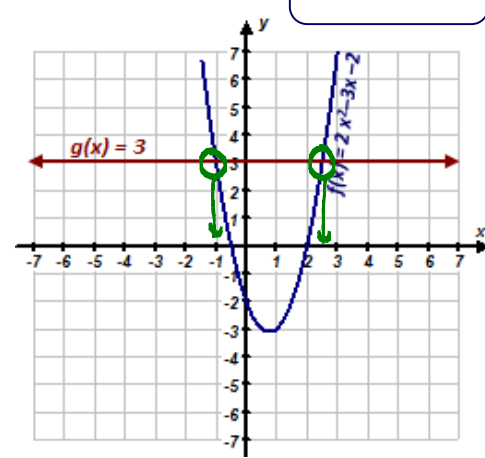
e. $-x^2 - 2x + 3 = 3$

$x = -2$ or 0



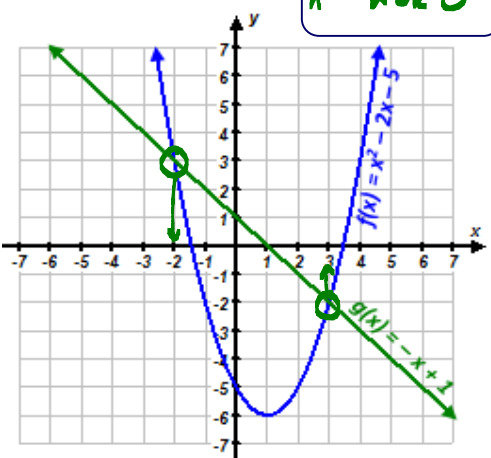
f. $2x^2 - 3x - 2 = 3$

$x = -1$ or 2.5



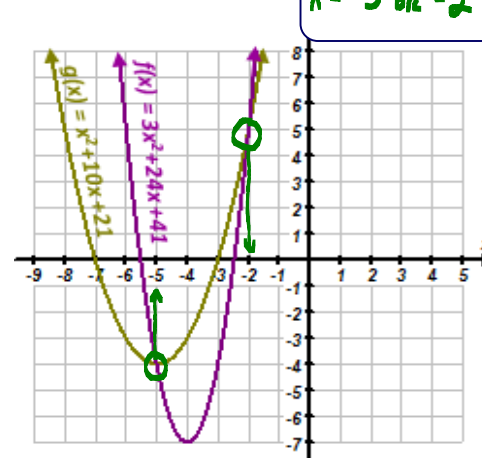
g. $-x^2 - 2x - 5 = -x + 1$

$x = -2$ or 3



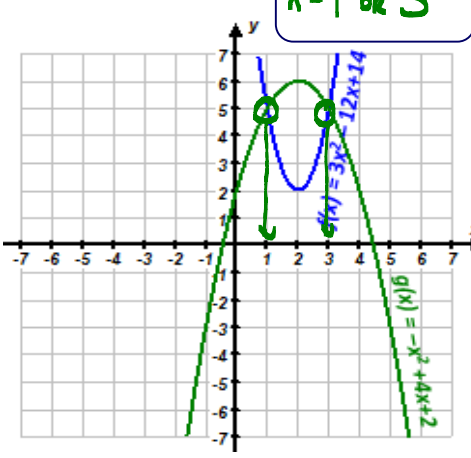
h. $x^2 + 10x + 21 = 3x^2 + 24x + 41$

$x = -5$ or -2



i. $3x^2 - 12x + 14 = -x^2 + 4x + 2$

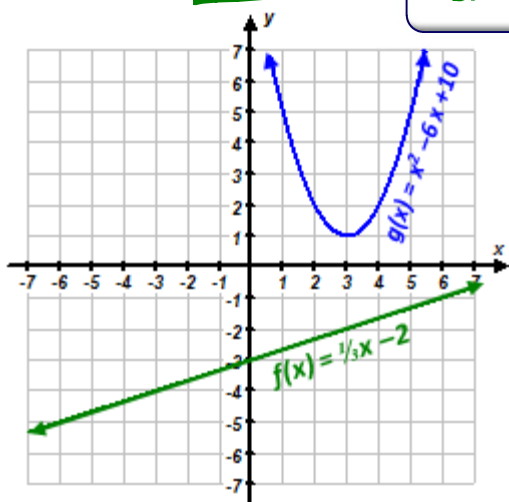
$x = 1$ or 3



2. Solve the following Quadratic Equations using their graphs.

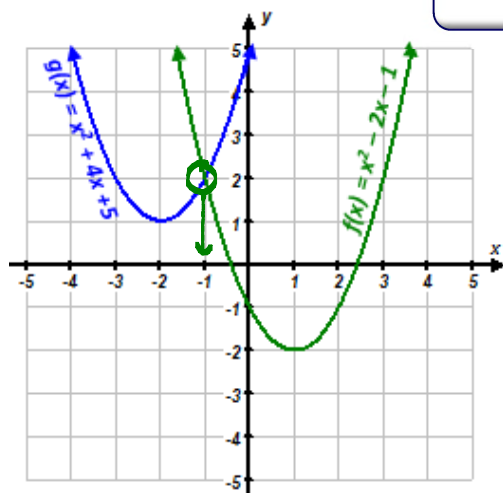
a. $x^2 - 6x + 10 = \frac{1}{3}x - 2$

NO REAL SOLUTION



b. $x^2 + 4x + 5 = x^2 - 2x - 1$

$x = -1$



3. Consider the functions $f(x) = a \cdot x^2 + b \cdot x + c$ and $g(x) = m \cdot x + d$. Given a, b, c, d are all constants, answer the following:

a. For which values of x does:

$a \cdot x^2 + b \cdot x + c = m \cdot x + d$

$x = S \text{ or } N$

b. For which values of x does:

$a \cdot x^2 + b \cdot x + c = 0$

$\uparrow$
X-AXIS

$x = q \text{ or } k$

c. For which values of x does:

$m \cdot x + d = 0$

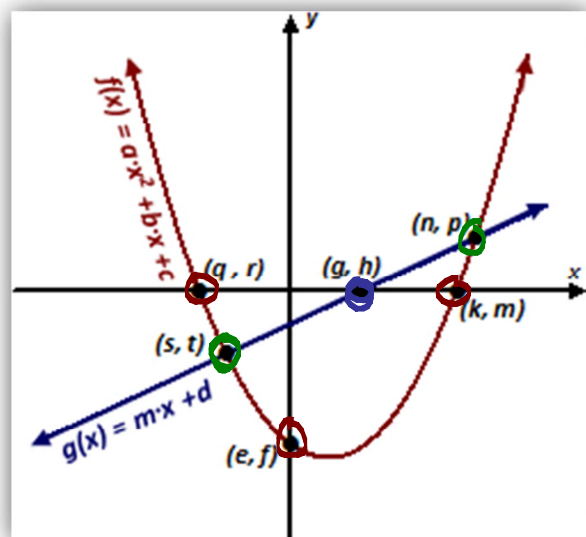
$\uparrow$
X-AXIS

$x = g$

d. What is the value of $f(0)$?

f

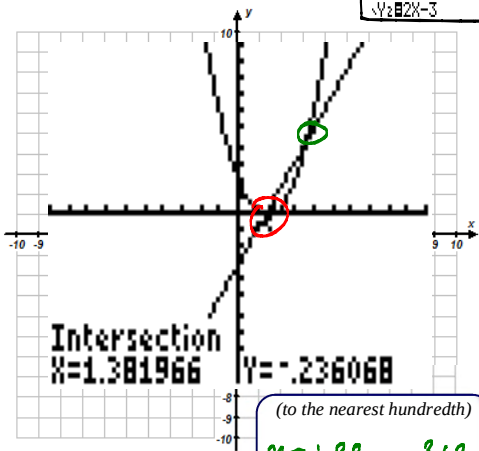
LET $x = 0$
WHERE DOES THE GRAPH CROSS THE Y-AXIS



b. Solve the following Quadratic Equations using graphing and your TI-84/83 "Intersect" command

a. $x^2 - 3x + 2 = 2x - 3$

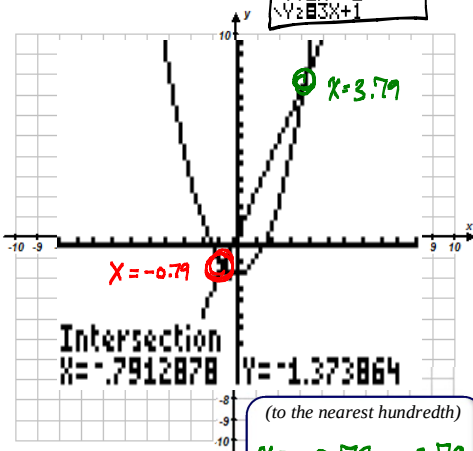
Plot1 Plot2 Plot3
 $\sqrt{Y1} = X^2 - 3X + 2$
 $\sqrt{Y2} = 2X - 3$



Intersection
 $X = 1.381966$ $Y = -.236068$
(to the nearest hundredth)
 $x \approx 1.38 \text{ or } 3.62$

b. $x^2 - 2 = 3x + 1$

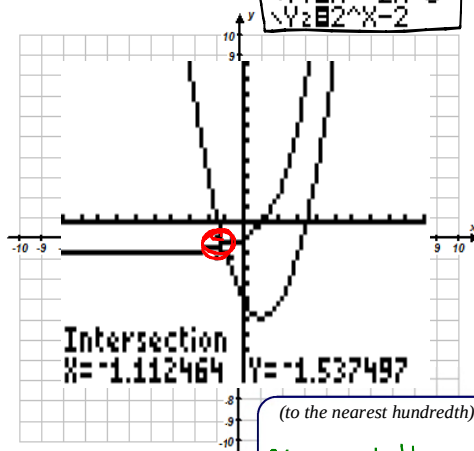
Plot1 Plot2 Plot3
 $\sqrt{Y1} = X^2 - 2$
 $\sqrt{Y2} = 3X + 1$



Intersection
 $X = -.7912878$ $Y = -1.373864$
(to the nearest hundredth)
 $x \approx -0.79 \text{ or } 3.79$

c. $x^2 - 2x - 5 = 2^x - 2$

Plot1 Plot2 Plot3
 $\sqrt{Y1} = X^2 - 2X - 5$
 $\sqrt{Y2} = 2^X - 2$



Intersection
 $X = -1.112464$ $Y = -1.537497$
(to the nearest hundredth)
 $x \approx -1.11$