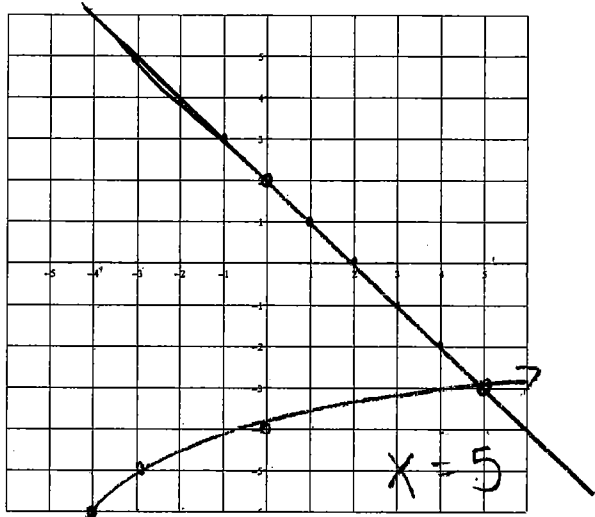


**2.3 Part 1 Solving Radical Equations Graphically**

1. Solve the equations graphically.

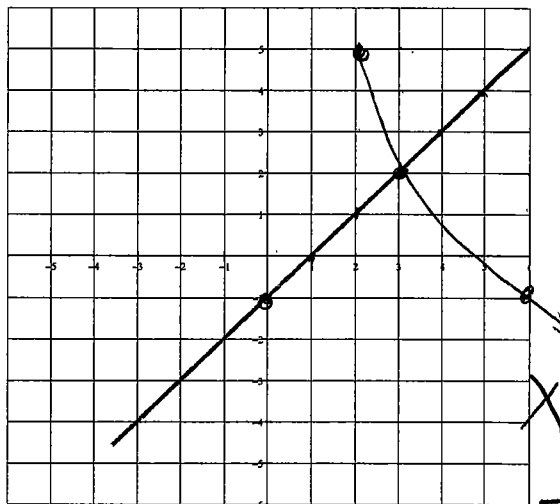
a)  $-x + 2 = \sqrt{x + 4} - 6$



$y = -x + 2$   
 $y = \sqrt{x + 4} - 6$

$x - 1 = -3\sqrt{x - 2} + 5$

b)  $x - 1 = 5 - 3\sqrt{x - 2}$

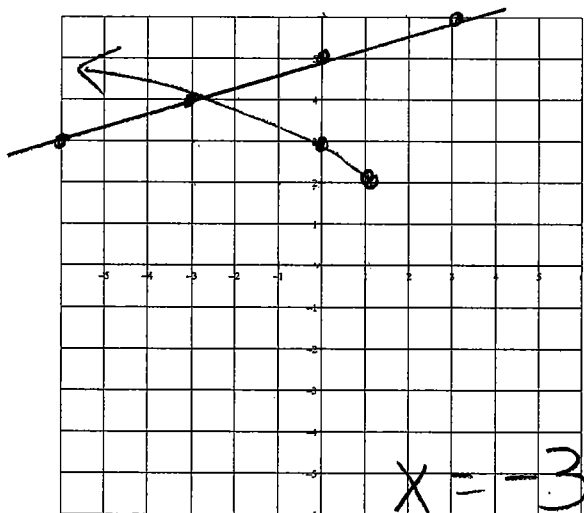


$y = x - 1$      $y = -3\sqrt{x - 2} + 5$

0	8	0
1	4	-3
4	2	-6

$x = 3$

c)  $\frac{1}{3}x + 5 = \sqrt{-(x - 1)} + 2$

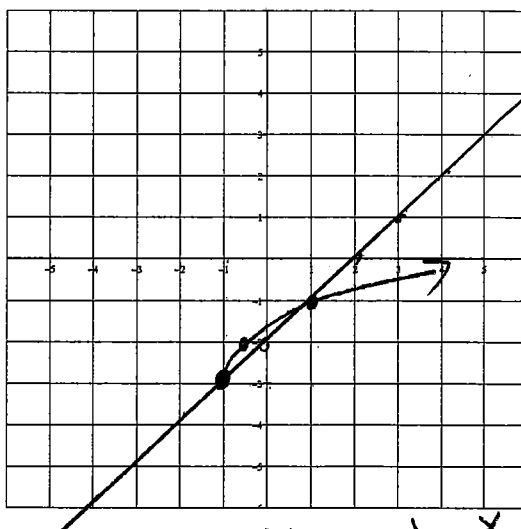


0	8	0
-1	4	1
-4	4	2

$y = \frac{1}{3}x + 5$   
 $y = \sqrt{-(x - 1)} + 2$

$x = -3$

d)  $x - 2 = \sqrt{2(x + 1)} - 3$



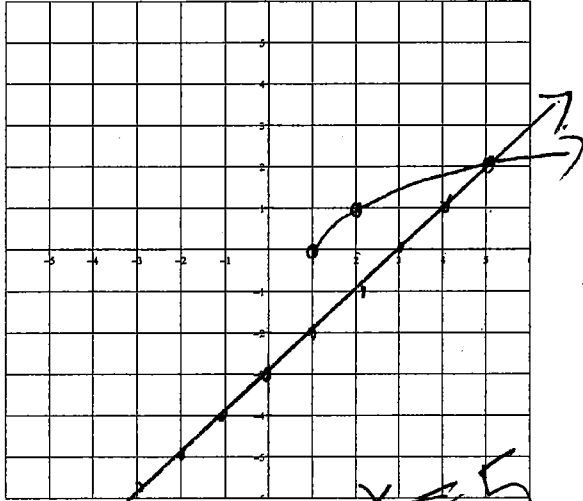
0	8	0
2	4	1
2	4	2

$x = -1$      $x = 1$

$y = x - 2$   
 $y = \sqrt{2(x + 1)} - 3$

2. Solve the following equations graphically.

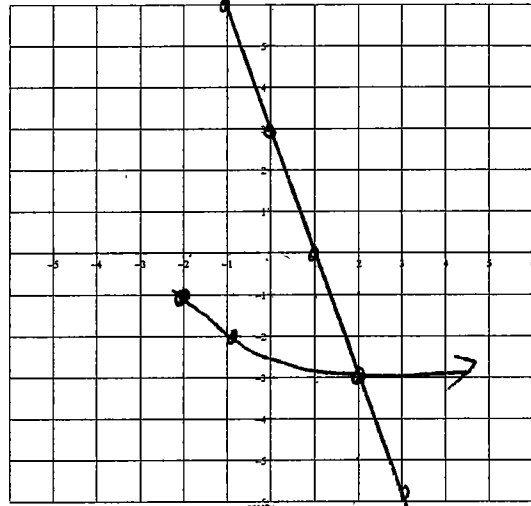
a)  $x - 3 = \sqrt{x - 1}$



$y = x - 3$   
 $y = \sqrt{x - 1}$

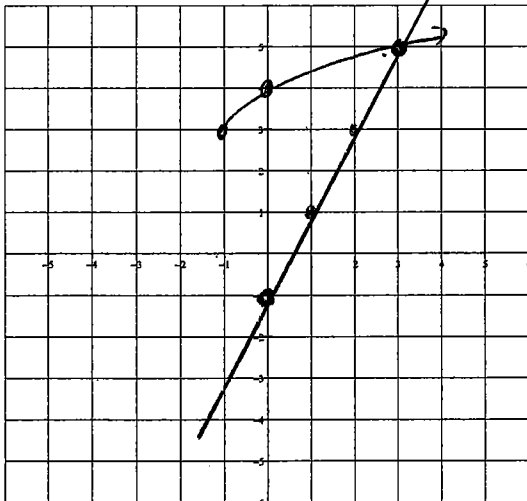
$x = 5$

b)  $-\sqrt{x + 2} - 1 = -3x + 3$



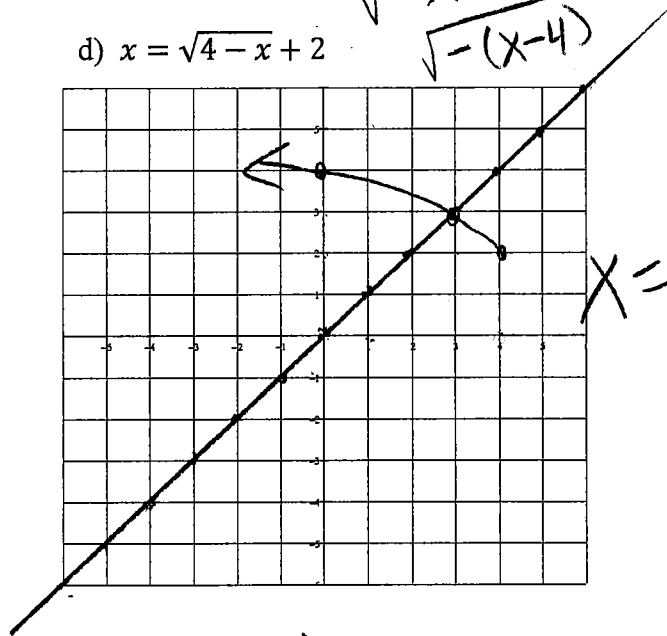
$y = -\sqrt{x + 2} - 1$   
 $y = -3x + 3$   
 $x = 2$

c)  $\sqrt{x + 1} + 3 = 2x - 1$



$x = 3$   
 $y = \sqrt{x + 1} + 3$   
 $y = 2x - 1$

d)  $x = \sqrt{4 - x} + 2$



$y = x$   
 $y = \sqrt{-(x - 4)} + 2$   
 $x = 3$