NAME:

DATE:

A2.Q1.BERMEL/LEMBO: **SYSTEMS OF EQUATIONS** **(DAY S3)**

NOTES

1. Which of the following are solutions to the system of equations? $y+x^2-x=0$
$x+y=-3$

A $(0,0)$ NO
B $(1,0)$ NO
C $(3,-6)$ YES
D $(2,-2)$ NO
E $(-1,-2)$ YES

Justify your answer by showing the computations.

$(0)+(0)^2-(0)=0$ $\quad 0=0$ T
$(0)+(0)=-3$ $\quad 0=-3$ F

$(0)+(1)^2-(1)=0$ $\quad 0=0$ T
$(1)+(0)=-3$ $\quad 1=-3$ F

$(-6)+(3)^2-(3)=0$ $\quad 0=0$ T
$(3)+(-6)=-3$ $\quad -3=-3$ T

$(-2)+(2)^2-(2)=0$ $\quad 0=0$ T
$(2)+(-2)=-3$ $\quad 0=-3$ F

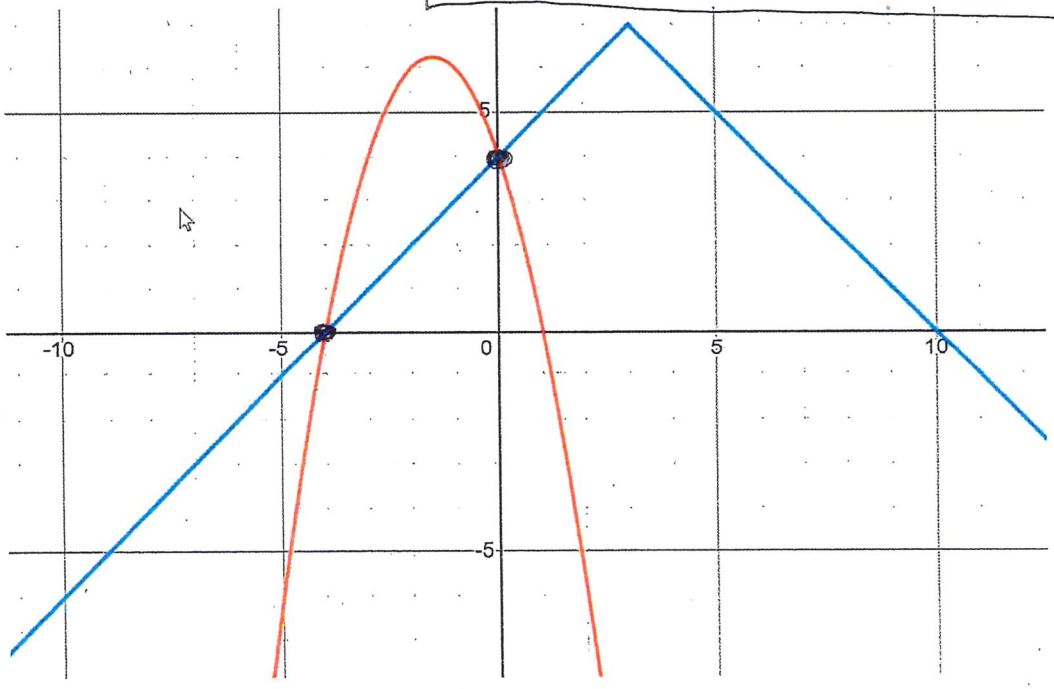
$(-2)+(-1)^2-(-1)=0$ $\quad 0=0$ T
$(-1)+(-2)=-3$ $\quad -3=-3$ T

2. Solve the system of equations using the method of **graphing**. The graph is given.

- $y=-x^2-3x+4$
- $y=-|x-3|+7$

"Where do the graphs "touch"?

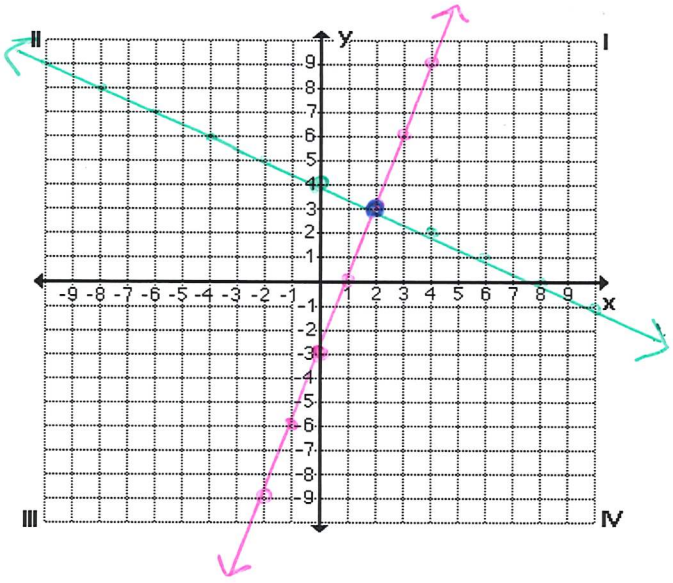
(-4,0) and (0,4)



3. Solve the system of equations using the method of **graphing**.

★ $y = 3x - 3$

★ $y = -\frac{1}{2}x + 4$

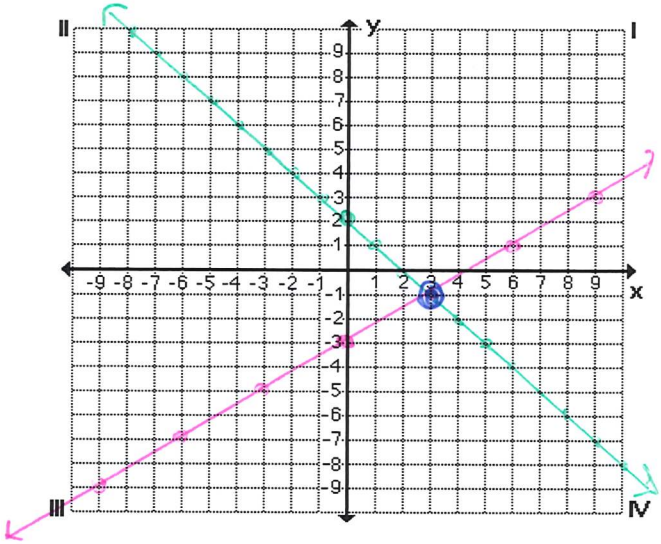


Solution
(2, 3)

4. Solve the system of equations using the method of **graphing**.

★ $y = \frac{2}{3}x - 3$

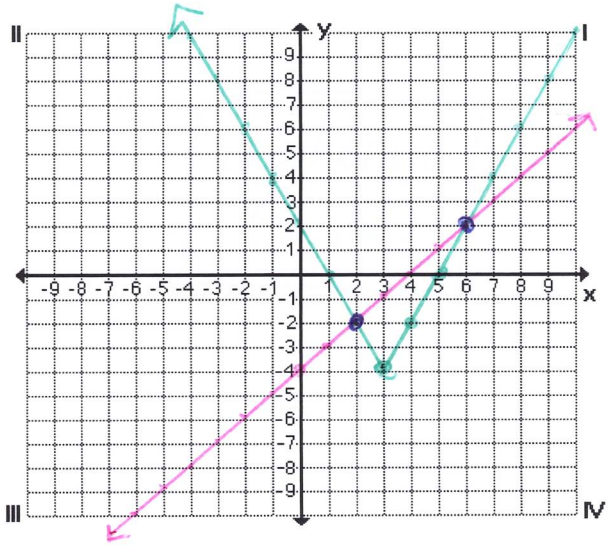
★ $y = -x + 2$



Solution
(3, -1)

5. Solve the system of equations using the method of **graphing**.

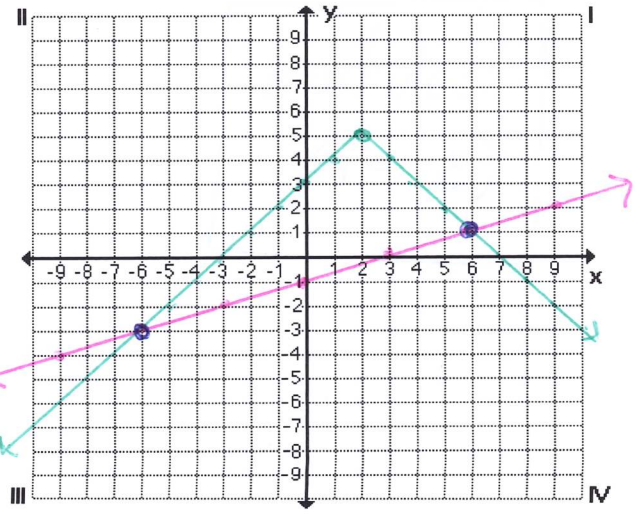
* $f(x) = x - 4$
* $g(x) = 2|x - 3| - 4$



Solutions
(2, -2)
(6, 2)

6. Solve the system of equations using the method of **graphing**.

* $y = \frac{1}{3}x - 1$
* $y = -|x - 2| + 5$



Solutions
(-6, -3)
(6, 1)