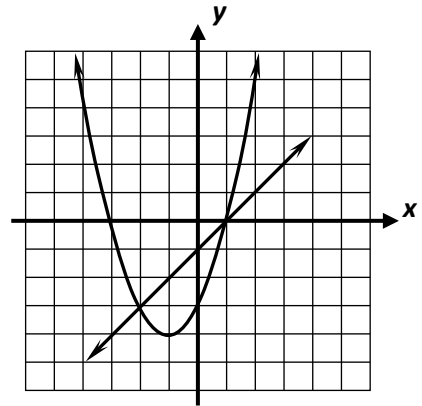


Algebra 1 CC
Assignment #50
Solving Equations Graphically

1. The functions $y = x^2 - 2x - 3$ and $y = x - 1$ are graphed on the grid shown below. Which of the following is the solution set of the equation:

$$x^2 - 2x - 3 = x - 1$$

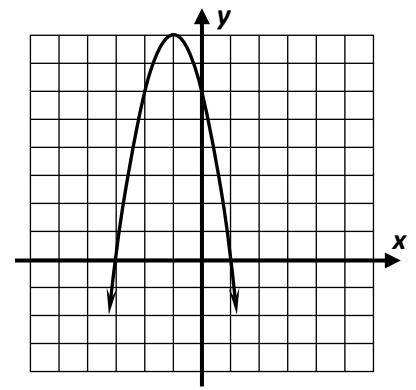
- (1) $\{-2, 1\}$ (3) $\{-3, 0\}$
(2) $\{-3, 1\}$ (4) $\{-1, 4\}$



2. If the quadratic function $y = -2(x+1)^2 + 8$ is shown graphed below, then which of the following represents the solutions to:

$$-2(x+1)^2 + 8 = 0$$

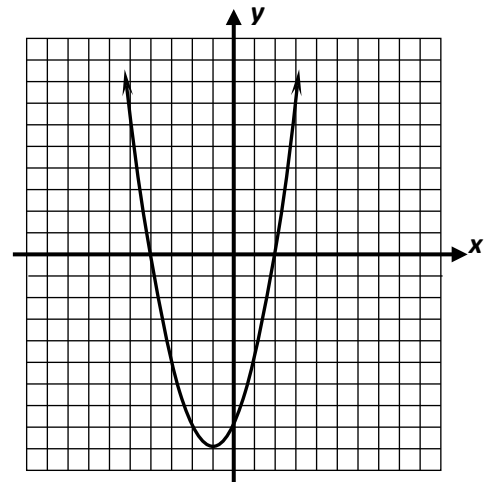
- (1) $x = 0, 3$ (3) $x = -2, 2$
(2) $x = -4, 8$ (4) $x = -3, 1$



3. The quadratic function $f(x) = x^2 + 2x - 8$ is shown graphed on the grid.

- (a) What values of x solve the equation $x^2 + 2x - 8 = 0$ based on this graph?
(b) Graph the line $g(x) = 2x + 1$ on the grid.
(c) What values of x solve the equation:

$$x^2 + 2x - 8 = 2x + 1$$



4. The graphs of two functions, $f(x)$ and $g(x)$, intersect only twice. Selected values of the functions are shown in the table below. Based on the table, state the solutions to the equation:

$$f(x) = g(x)$$

x	-2	-1	0	1	2	3
$f(x)$	7	3	-2	-8	0	5
$g(x)$	-8	3	5	1	0	-3

Solutions: _____

R1. From $3y^2 + 2y - 9$ subtract $y^2 + 6y - 7$

R2. Simplify: $b^2 + (b - 5)(b + 4) + 20$

R3. Simplify: $3(z - 2) + 4(z + 5)$

R4. Simplify: $(3c - 5)^2$

R5. Which equation represents the line that passes through the points $(-1, -2)$ and $(3, 10)$?

(1) $y = 3x + 1$

(3) $y = 4x + 2$

(2) $y = 3x - 1$

(4) $y = 4x - 2$

R6. Owino gets paid \$280 per week plus 5% commission on all sales for selling electronic equipment. If he sells n dollars worth of electronic equipment in one week, which algebraic expression represents the amount of money he will earn that week?

(1) $280n + 5$

(3) $280 + 0.05n$

(2) $280n + 0.05$

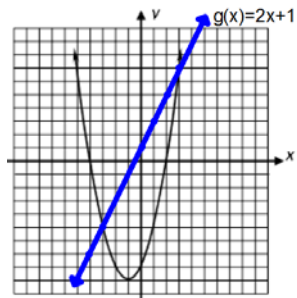
(4) $280 + 5n$

1. (1)

2. (4)

3. (a) $\{2, 4\}$

(b)



(c) $\{-3, 3\}$

4. $\{(-1, 3), (2, 0)\}$

R1. $2y^2 - 4y - 2$

R2. $2b^2 - b$

R3. $7z + 14$

R4. Simplify: $9c^2 - 30c + 25$

R5. (1)

R6. (3)