Math 4111   Solving a System of Equations (Parabola and a Line)

e.g. 1

RED ARROWS POINT TO INTERSECTION POINTS

$x^2 - y = 2$

$2x - y = -1$

P_1

P_2
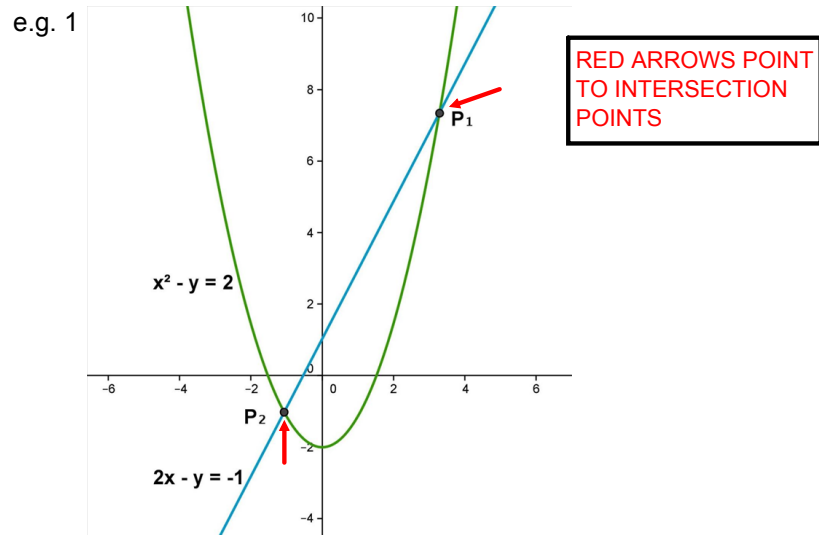
Method: To solve a system of equations, isolate "y" in each equation, then use comparison method to solve for x. Once you find each "x" you can "plug it into" either equation to find the "y".
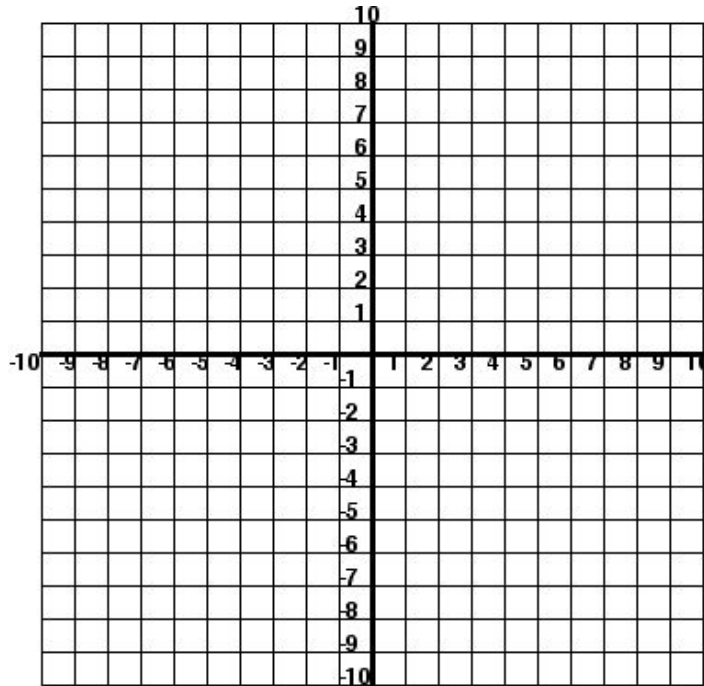
Solve the system of equations shown above:

Answer: _____

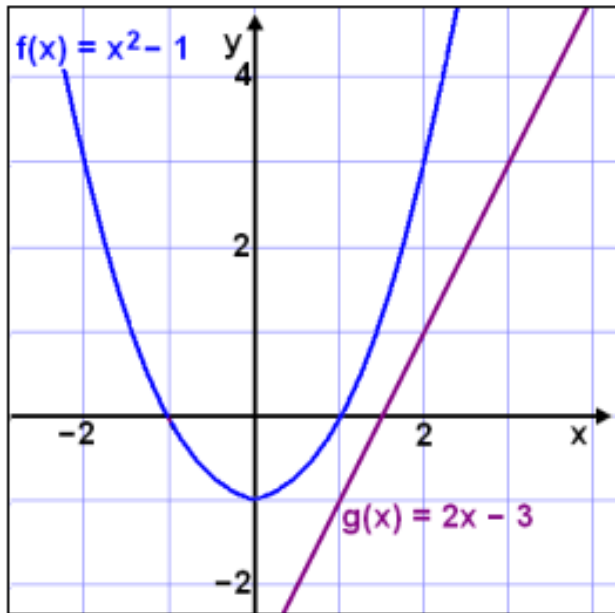e.g. 2 Solve the following system of equations:

1. $y = x^2 - 3x - 4$

2. $y = x - 8$

Answer: _____

e.g. 3   Solve the following system of equations:

$$f(x) = x^2 - 1$$

$$g(x) = 2x - 3$$

Answer: _____

3 possible scenarios:

No solutions	One solution	Two solutions
(a)	(b)	(c)