

**standard
window**

ZOOM 6

x-min = -10, x-max = 10

y-min = -10, y-max = 10

trace

- use right and left arrow keys to trace along the graph
- use the up and down arrow keys to toggle between different graphs
- type a value for x and press enter to jump to that point

**2nd trace
or calc**

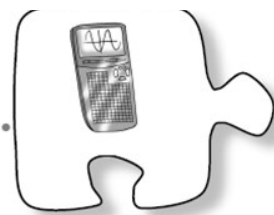
use the right/left arrow keys to get close to the point of

5: intersect

intersection...hit enter 3 times

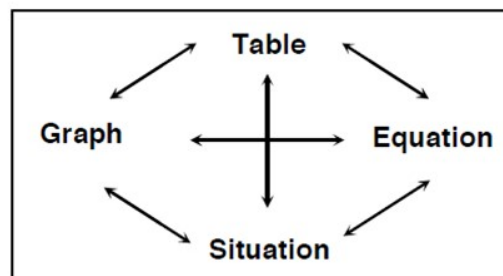
1.1.4 How can I represent intersections?

Points of Intersection in Multiple Representations



Throughout this course, you will represent functions in several different ways, and you will find connections between the various representations. These connections will give you new ways to investigate functions and to justify your conclusions.

How can these connections help you understand more about systems of equations? In this lesson, you will make connections between ways of representing a system of equations as you use your graphing calculator to find the points of intersection in multiple representations.



Facilitator needs to read Problem 1 to the team.

multiple
representations
of points of
intersection

graph

table

algebra

$$f(x) = 2x^2 - 5x + 6$$

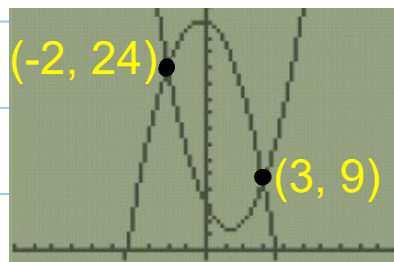
$$g(x) = -2x^2 - x + 30$$

multiple
representations
of points of
intersection

graph

$$f(x) = 2x^2 - 5x + 6$$

$$g(x) = -2x^2 - x + 30$$



table

X	Y ₁	Y ₂
-2	24	24
-1	13	29
0	6	30
1	3	27
2	4	20
3	9	9

algebra

solve using
substitution

$$f(x) = 2x^2 - 5x + 6$$

$$g(x) = -2x^2 - x + 30$$

key points/
questions

classwork

Summary

What are the different ways you can represent intersections?

