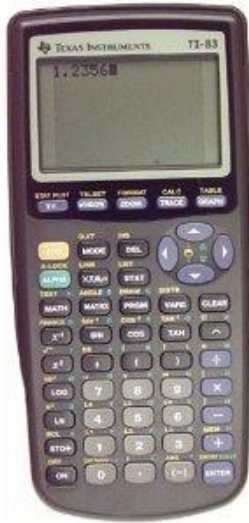


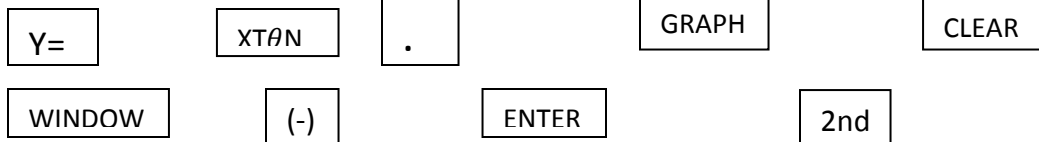
Algebra Concepts – Unit 1 Lesson 4

Graphing Linear Functions with a graphing calculator

Ok guys, now that you're pros with function types let's see what you can do with some cool technology.



Find these important buttons. When you're done we'll discuss them.



Let's try an example

Graph the equation $y = 3x + 5$ using the standard window settings.

The standard window settings are:

Xmin = -10

Xmax = 10

Xscl = 1

Ymin = -10

Ymax = 10

Yscl = 1

Step 1 – Check the window. Adjust the settings as needed. The direction arrows are the top right corner of your calculator.

Step 2 – Type the equation into $Y_1 =$

Step 3 – Press the GRAPH button.

What do you see?



Guided Practice 1

Graph $Y = X - 4$ in the same window. Use Y_2 instead of deleting the existing equation.

Sketch it!



Now change the window to:

Xmin = -20

Xmax = 20

Xscl = 1

Ymin = -5

Ymax = 5

Yscl = 1



What happened to the graphs???

Now adjust the window so that the intersection of the two lines is visible. Fill in the blanks below to show the window settings you used.

Xmin = _____

Xmax = _____

Xscl = 1

Ymin = _____

Ymax = _____

Yscl = 1

Guided Practice 2

Reset the window to:

Xmin = -10

Xmax = 10

Xscl = 1

Ymin = -10

Ymax = 10

Yscl = 1

Clear the equation out of Y=

Graph the equation **$Y = X - 12$** on the calculator.

What's up?



Notice that you cannot see the places where the graph crosses the x and y axes.

Adjust your window so that the graph **crosses the x and y-axes your screen**.

Fill in the window settings that you used.

Xmin = _____

Xmax = _____

Xscl = 1

Ymin = _____

Ymax = _____

Yscl = 1

Guided Practice 3

Reset the window to:

Xmin = -10

Xmax = 10

Xscl = 1

Ymin = -10

Ymax = 10

Yscl = 1

Graph these four equations using your calculator:

$$Y_1 = -4X - 30$$

$$Y_1 = 4X + 10$$

$$Y_1 = -4X + 10$$

$$Y_1 = 4X - 30$$

