1.6 Make a Table

TEKS a.3, a.5, A.1.D

QUESTION **How can you use a graphing calculator to create a table for a function?**

You can use a graphing calculator to create a table for a function when you want to display many pairs of input values and output values or when you want to find the input value that corresponds to a given output value.

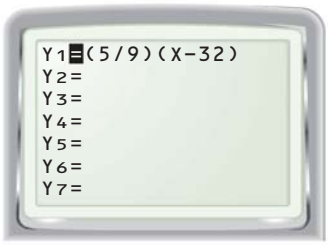
In the example below, you will make a table to compare temperatures in degrees Celsius and temperatures in degrees Fahrenheit for temperatures at or above the temperature at which water freezes, 32°F.

EXAMPLE **Use a graphing calculator to make a table**

The formula $C = \frac{5}{9}(F - 32)$ gives the temperature in degrees Celsius as a function of the temperature in degrees Fahrenheit. Make a table for the function.

STEP 1 *Enter equation*

Rewrite the function using x for F and y for C. Press Y= and enter $\frac{5}{9}(x - 32)$.

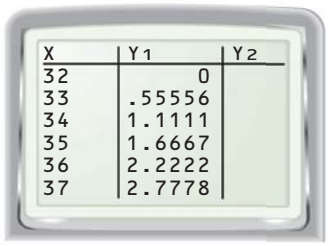


STEP 2 *Set up table*

Go to the TABLE SETUP screen. Use a starting value (TblStart) of 32 and an increment (△Tbl) of 1.

STEP 3 *View table*

Display the table. Scroll down to see pairs of inputs and outputs.



PRACTICE

1. You see a sign that indicates that the outdoor temperature is 10°C. Find the temperature in degrees Fahrenheit. *Explain* how you found your answer.
2. Water boils at 100°C. What is the temperature in degrees Fahrenheit?

Make a table for the function. Use the given starting value and increment.

3. $y = \frac{3}{4}x + 5$
   TblStart = 0, △Tbl = 1
4. $y = 4x + 2$
   TblStart = 0, △Tbl = 0.5
5. $y = 7.5x - 0.5$
   TblStart = 1, △Tbl = 1
6. $y = 0.5x + 6$
   TblStart = 3, △Tbl = 3