

How to Do Page 11 Example 1 Using TI-Nspire™ With Touchpad



Use the TI-Nspire™ with Touchpad to calculate the sixth term for $t_n = 7n + 5$.

Method A: Use the Sequence Function

1. Press the home key and open A: Calculate.
See Figure 1.

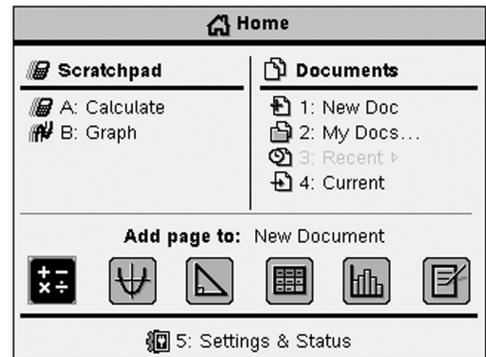


Figure 1

2. Generate a sequence.
 - Press **menu**.
 - Select 6: Statistics and 4: List Operations as shown in Figure 2.
 - Select 5: Sequence and press **enter**.
 - You are now ready to enter information about the sequence using the following syntax:
seq(expression, variable, starting value of variable, ending value of variable, increment of variable)
Note: X is usually chosen for the variable.

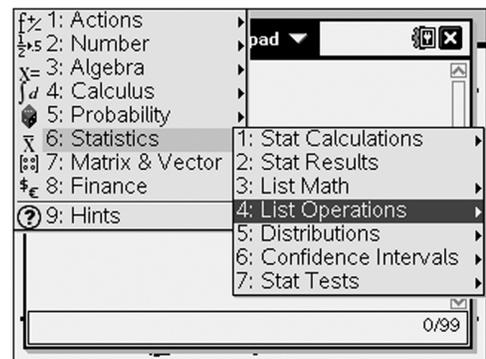


Figure 2



3. To generate term numbers 6 to 10,
 press: $7x + 5$ \square x \square 6 \square 10 \square 1 and then press \square .

You will see Figure 3.

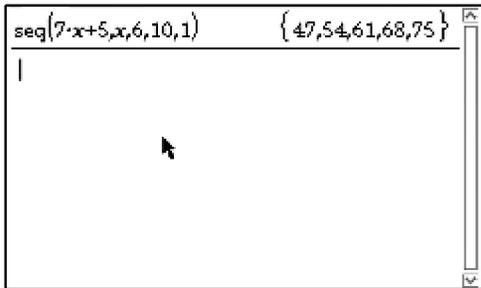


Figure 3

Method B: Use the Sequence Graph Type

1. Press the home key and open 1: New Document.
 Then, select 2: Add Graphs. See Figure 4.

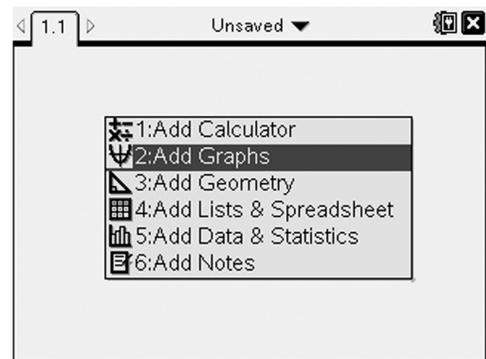


Figure 4

- Press \square .
- Select 3: Graph Type, and then select 5: Sequence.
- Press \square and select 1: Sequence as shown in Figure 5. Press \square .

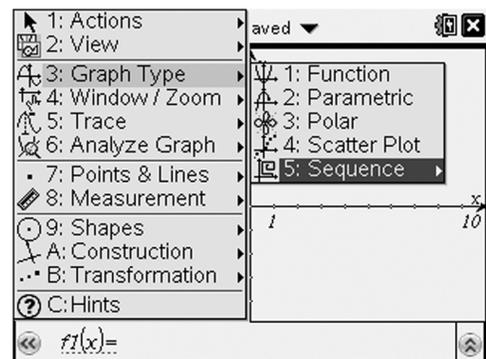


Figure 5



2. Generate the arithmetic sequence by entering the following, as shown in Figure 6.

- $7N + 5$ for $u_1(n)$
- **12** for *Initial Terms* (value of the first term)

Note: Leave *nstep* equal to 1, so n increases by 1.

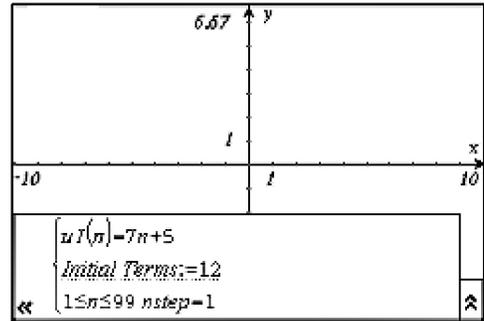


Figure 6

3. To enter your Window setting, press . Then, select 4: Window/Zoom, and 1: Window Settings. See Figure 7. Press .

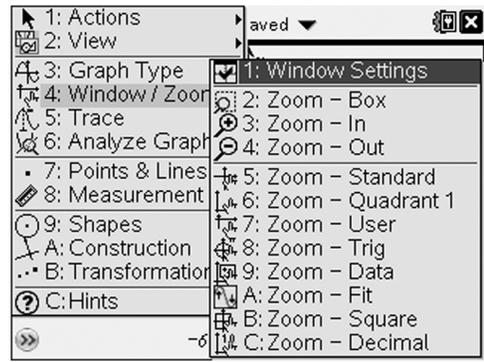


Figure 7

- Enter window settings. For example: $x_{min} = 0$, $x_{max} = 8$, $y_{min} = -1$, $y_{max} = 60$. See Figure 8 below.
- Click to view the graph in Figure 9.

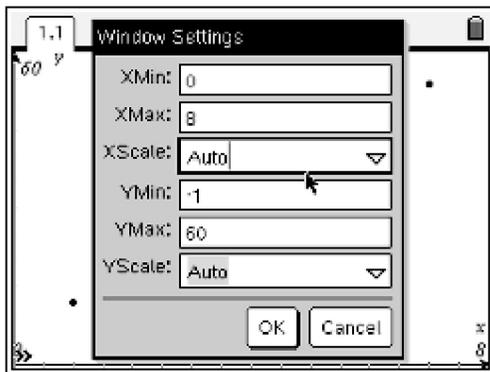


Figure 8

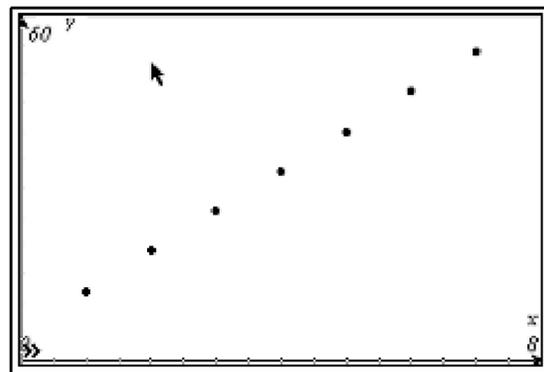


Figure 9



4. To trace the data and find information about points, do the following:
 - Press .
 - Select 5: Trace, and then select 1: Graph Trace. See Figure 10. Press .
 - Use the right and left arrows of the NavPad to move to different points. See Figure 11.

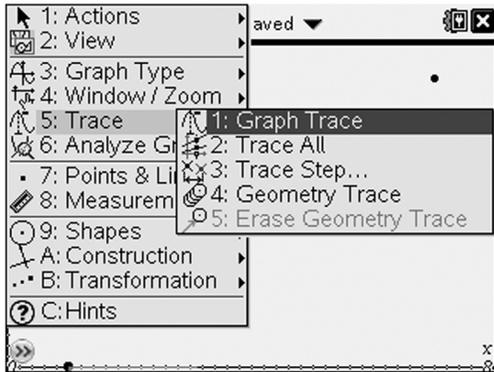


Figure 10

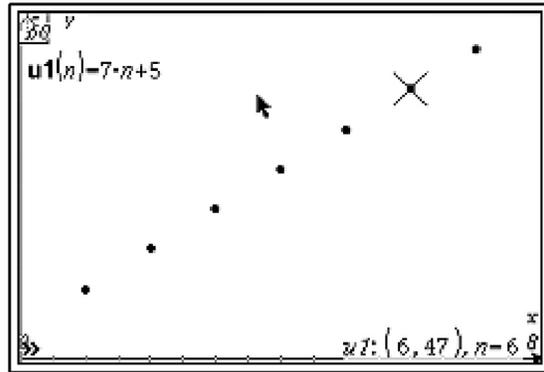


Figure 11

5. If you wish to add a table, press .
 - Select 2: View, and then select 9: Show Table. See Figure 12.
 - You can move the cursor to either column and scroll up and down with the NavPad. See Figure 13.

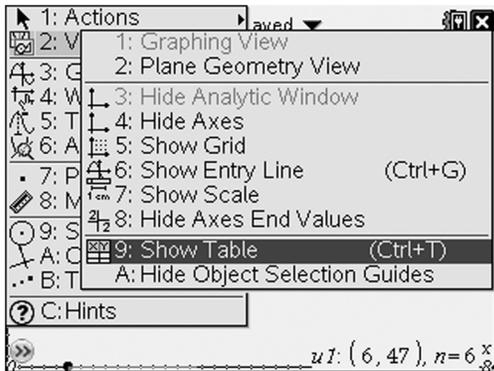


Figure 12

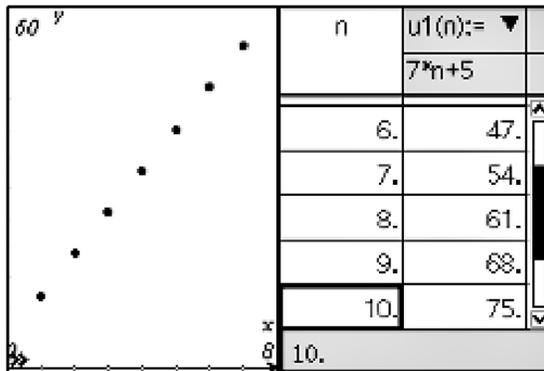


Figure 13