

How to Do Page 11 Example 1 Using TI-83/84

Use the TI-83/84 to calculate the sixth term for $t_n = 7n + 5$.

Method A: Use the Sequence Function

- From the home screen, press **CLEAR** and then press **2nd** **STAT**. You are now in the LIST screen. See Figure 1.

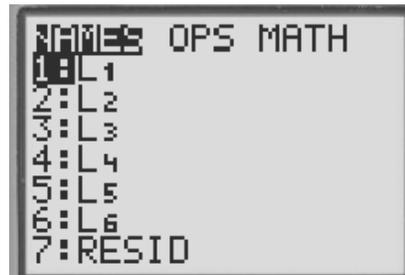


Figure 1

- Move the cursor to OPS and press **ENTER**. See Figure 2.

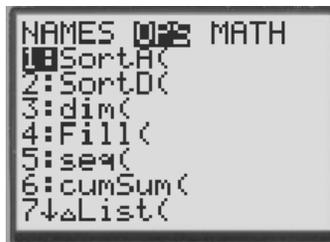


Figure 2

- Move the cursor to 5:seq(and press **ENTER**.
 - 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.
 - To generate terms 6 to 10, press the following, as shown in Figure 3.

7 **X,T,θ,n** **+** 5 **,** **X,T,θ,n** **,** 6 **,** 10 **,** 1 **ENTER**

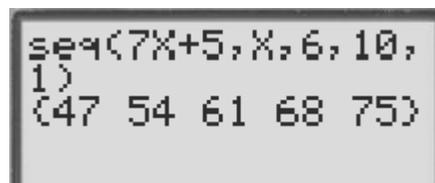


Figure 3



Method B: Use the Sequence Mode

1. Press **MODE**.
2. Move the cursor to SEQ and press **ENTER**. See Figure 4.
3. Press **Y=**. You can now enter up to three sequences called u, v, and w. See Figure 5.

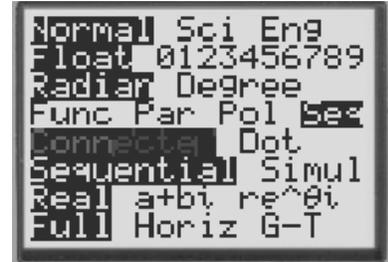


Figure 4

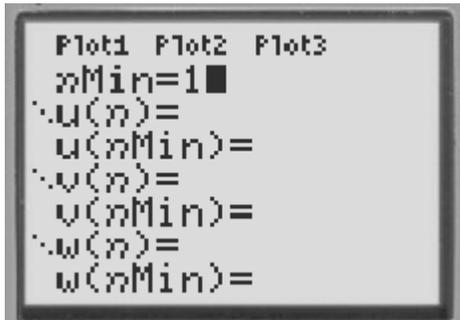


Figure 5

- Typically the sequence is entered as sequence u, where
 $nMin$ = the smallest value for n ($nMin$ is usually set to 1.)
 $u(n)$ = the expression for the sequence you wish to enter
 $u(nMin)$ = the starting value of the sequence
- Enter the following values. See Figure 6.
 - Move the cursor to the line $nMin$ and press **1** **ENTER**.
 - On the line $u(n) =$, press **12** **+** **(** **X,T,θ,n** **-** **1** **)** **×** **7** **ENTER**.
 - On the line $u(nMin) =$, press **12** **ENTER**.

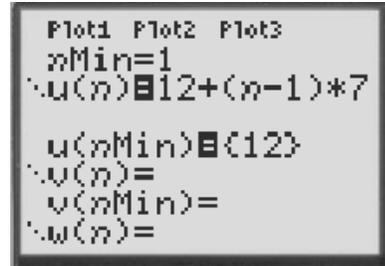


Figure 6

4. To generate a table of the sequence, press **2nd** **GRAPH** as shown in Figure 7.
 Note: TBLSET can be in ASK or AUTOMATIC mode. For the example shown, TBLSET is in AUTOMATIC mode with TblStart = 1 and $\Delta Tbl = 1$.

n	$u(n)$
12	
19	
26	
33	
40	
47	
54	
$n=1$	

Figure 7

