

### Homework Assignment 8: Calculator Appendix

- Figure 1 (below) shows the calculator commands that are needed to get a TI-83 calculator to evaluate the sum of the series:

$$3^4 + 5^4 + 7^4 + \dots + (2n + 1)^4 + \dots + 575^4$$

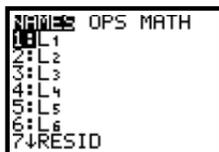


Figure 1(a): Access the LIST menus by pressing [2nd] [STAT]



Figure 1(b): Choose the MATH menu and option 5:sum



Figure 1(c): After pressing [ENTER], the screen of your calculator will resemble this

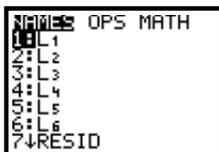


Figure 1(d): Access the LIST menus by pressing [2nd] [STAT]

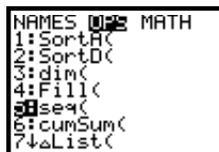


Figure 1(e): Choose the OPS menu and option 5:seq

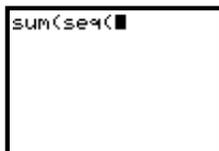


Figure 1(f): After pressing [ENTER], the screen of your calculator will resemble this

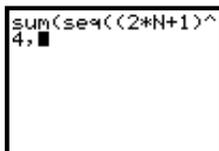


Figure 1(g): Enter the formula for the general term of the sum, followed by a comma

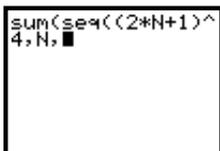


Figure 1(h): Enter the name of the independent variable, followed by a comma

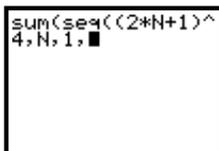


Figure 1(i): Enter the first value of the independent variable, followed by a comma

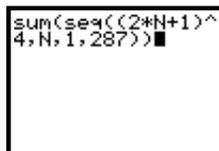


Figure 1(j): Enter the last value of the independent variable, closing all brackets

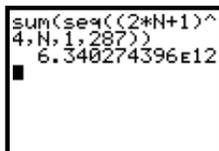


Figure 1(k): After pressing [ENTER], the screen of your calculator will resemble this

- To use a calculator to evaluate the "total so far" (or "partial sum") of a different series, you will have to adapt the steps shown in Figure 1 as follows:
  - Identify the equation for the "general term" of your series and use this instead of:  $(2 * N + 1)^4$  when entering the commands into the calculator.
  - Identify the value of  $N$  that corresponds to the first term in your series. If this value of  $N$  is different from 1, then you need to use that value instead of the 1 shown in Figure 1(i).
  - Identify the value of  $N$  that corresponds to the last term in your series. If this value of  $N$  is different from 287, then you need to use that value instead of the 287 shown in Figure 1(j).