TI–89 PROGRAM: PARTIAL SUM OF P SERIES
(remember to press ENTER at end of each line)

To begin: ON   APPS   7 (for Program Editor   3 (for New)   <u>NOTE</u>: Press ENTER at the end of each line!
Type needs to be Program   Variable needs to be the title of the program, say Partial sum
Then start typing after the Prgm line and before the EndPrgm line.
When you type in the program, *Disp* comes from F3 2; *Input* comes from F3 2
For...EndFor comes from F2 4   STO is a key   α stands for the alpha key   2nd α locks the alpha key

KEY IN	DISPLAY	EXPLANATION
Disp 2nd " 2nd αVALUE OF P"	Disp "VALUE OF P"	The P in the p-series
Input αP	Input P	After ?, type in the desired P
Disp 2nd " 2nd α INITIAL INDEX"	Disp "INITIAL INDEX"	
Input αM	Input M	After ?, type in the desired initial index M
Disp 2nd " 2nd α LARGEST INDEX"	Disp "LARGEST INDEX"	
Input αJ	Input J	After ?, type in the desired final index J
ϕ STO S	$\phi \to S$	ϕ is stored in location S (S = partial sum of series)
M STO N	$M \to N$	N will be variable index; its smallest value is M
For αN,1,αJ	For N,1,J	Start of loop, with N increasing by 1 until N = J
αS + 1/αN ^ αP STO αS	$S + 1/N \wedge P \to S$	The sum S is increased by $1 / N^P$ and renamed S
	EndFor	End of the loop
Disp "ααJ–N+1 PARTIAL SUM"	Disp "J–N+1 PARTIAL SUM	
Disp αS	Disp S	Displays the desired partial sum $\sum\limits_{n=m}^{j} 1 / n^p$.

EXPRESSIONS IN ITALICS ABOVE:

Disp can be found under I/O

Input can be found under I/O

For can be found under CTL

End can be found under CTL

" can be founded under I/O   MORE

ϕ represents zero (distinguished from the letter 0)