TI - 82, 83, 83+

SIMPSON'S RULE SUM PROGRAM

```
Disp "ENTER YOUR FN"
Disp "IN Y 1"
Disp "WHAT IS N?"
Prompt N
Disp "LOWER LIMIT?"
Prompt A
Disp "UPPER LIMIT?"
Prompt B
(B-A)/N→D
0→S
For(I,1,N-1,2)
S+4*Y₁(A+D*I)→S
End
For(I,2,N-2,2)
S+2*Y₁(A+D*I)→S
End
S+Y₁(A)+Y₁(B)→S
D*S/3→S
Disp "SIMPSONS SUM IS"
Disp S
Stop
```

"HOW MANY INTERVALS?"

2nd A-LOCK locks you in alphabet mode (until you go to a new line).

PRGM Right Arrow to I/O to find Disp and PROMPT

STO▶ is " → "

PRGM go down the CTRL list to find FOR, END, and STOP

To get Y₁

VARS, right arrow to Y-VARS, choose FUNCTION, choose Y₁

TRAPEZOID RULE PROGRAM

```
Disp "ENTER YOUR FN"
Disp "IN Y 1"
Disp "N EQUALS WHAT?"
Prompt N
Disp "LOWER LIMIT?"
Prompt A
Disp "UPPER LIMIT?"
Prompt B
0→S
(B-A)/N→D
For(I,0,N)
S+Y₁(A+I*D)→S
End
For(I,1,N-1)
S+Y₁(A+I*D)→S
End
D*S/2→T
Disp T
Stop
```

"HOW MANY INTERVALS?"

← Disp "Trapezoid Sum is"