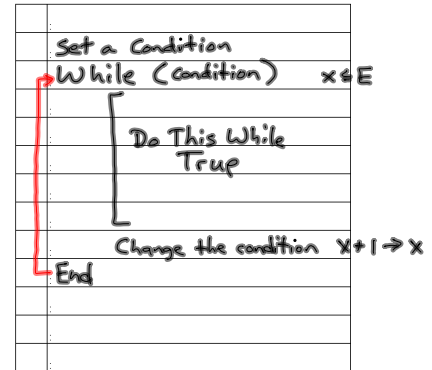


Advanced Math

Programming
Looping:
While Statements

While Loops



Examine: $\sum_{x=1}^5 (2x+1)$

5 ← end number
1, 2, 3, 4, 5 ← start number

$= [2(1)+1] + [2(2)+1] + [2(3)+1] + [2(4)+1] + [2(5)+1]$

$= 3+5+7+9+11 = 35$

Found in VAR5
Y=VAR5 Function

D	1
E	5
Y1	"2X+1"
TOTAL T	0 3
X	2 2

Write a program that will allow the user to compute a sum (sigma) for any equation, any start value, and any end value. Name the program Sigma.

prgmSIGMA

```

1 Clr Home
2  Disp "ENTER START_NUM"
3  Input D
4  Disp "ENTER END_NUM"
5  Input E
6  Disp "ENTER EQUATION"
7  Disp "IN QUOTES"
8  Input Y1
9  D -> X
10 O -> T
11 while (X <= E)
12   T + Y1 -> T
13   X + 1 -> X
14 End
  
```

D	1
E	5
Y1	"2x+1"
X	1 2 3 4 5 6
T	0 3 5 7 9 11 35