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1. psuedo code:
   assign values to t_0, t_1, t_2
   while $t_3 \, != 1$; $t_3 = a_0 < t_2$
       add t_0 & t_1
       acid 4 to t_1
       add 1 to t_2

   ~~add~~ $v_0 = t_0 + 0$

⊗ C code:

```
int a = 0;
int b = 0;
int c = 0;
int t3 = n < c;
while (t3 == 0) {
    a = a + b;
    b = b + 4;
    c = c + 1;
    t3 = n < c; }

int output = a + 0;
```

output → $\{ v_0$
$\{ t_0 \to a$
$\{ t_1 \to b$
$\{ t_2 \to c$
$\{ t_3 \to t_3$
$\{$ ~~A → t_0~~
$\{ a_0, \to n$

calculates ~~n(4n+2)~~ $\boxed{\dfrac{n(4n+2)}{2}}$

```
2.   addi  $s0, ~~~~~~~~~~ $0, 0
     addi  $s1, ~~~~~~~~~~ $0, 0
     addi  $t0, ~~~~~~~~~~ $0, 0


loop:   slti  $t1, $t0, 10

        beq  $t1, $0, exit
        addi  $s0, $s0, 2
        add  $s1, $s1, $s0
        add  $s1, $s1, $t0
        addi $t0, $t0, 1
        j  loop


exit:
```