B. Covered Path

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

The on-board computer on Polycarp's car measured that the car speed at the beginning of some section of the path equals v_1 meters per second, and in the end it is v_2 meters per second. We know that this section of the route took exactly t seconds to pass.

Assuming that at each of the seconds the speed is constant, and between seconds the speed can change at most by d meters per second in absolute value (i.e., the difference in the speed of any two adjacent seconds does not exceed d in absolute value), find the maximum possible length of the path section in meters.

Input

The first line contains two integers v_1 and v_2 $(1 \le v_1, v_2 \le 100)$ — the speeds in meters per second at the beginning of the segment and at the end of the segment, respectively.

The second line contains two integers t $(2 \le t \le 100)$ — the time when the car moves along the segment in seconds, d $\mathbf{(0 \le d \le 10)}$ — the maximum value of the speed change between adjacent seconds.

It is guaranteed that there is a way to complete the segment so that:

- the speed in the first second equals v_1,
- the speed in the last second equals v_2,
- the absolute value of difference of speeds between any two adjacent seconds doesn't exceed d.

Output

Print the maximum possible length of the path segment in meters.

Examples

input

```
5 6
4 2
```

output

```
26
```

input

```
10 10
10 0
```

output

```
100
```

Note

In the first sample the sequence of speeds of Polycarpus' car can look as follows: 5, 7, 8, 6. Thus, the total path is $5+7+8+6=26$ meters.

In the second sample, as $d=0$, the car covers the whole segment at constant speed $v=10$. In $t=10$ seconds it covers the distance of 100 meters.