

## 783 Trains

Two towns T1 and T2 are connected through a double railroad. The distance between T1 and T2 is  $d$  meters. From T1 to T2 the trains are leaving every  $t_1$  seconds. From T2 to T1 the trains are leaving every  $t_2$  seconds. The trains from T1 to T2 have a speed of  $v_1$  m/s. The trains from T2 to T1 have a speed of  $v_2$  m/s.

Your task is to write a program that computes the number of train “rendezvous” on the railroad which links T1 and T2, and which occur during the time interval  $[0, tf]$  seconds.

We consider that:

- a) at time 0 two trains are leaving (from T1 to T2, and from T2 to T1);
- b) the input and output data are integers.

### Input

Your program reads data sets, one per line, in the following format:  
 $d \ v_1 \ v_2 \ t_1 \ t_2 \ t_f$ .

### Output

The program writes to the output the number of “rendezvous”.

### Sample Input

```
10 5 5 1 1 2
```

### Sample Output

```
6
```