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 $[0, t_f]$ 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