



## Output

- Return how long before the trains collide, or
- Return `-1` if they have not crashed before `limit` time has elapsed, or
- Return `0` if the trains were already crashed in their start positions. Blaine is sneaky sometimes.

## Notes

### Trains

- Speed...
  - All trains (even the "Express" ones) move at the same constant speed of 1 track piece / time unit
- Length...
  - Trains can be any length, but there will always be at least one carriage
- Stations...
  - Suburban trains stop at every station
  - "Express" trains don't stop at any station
  - If the start position happens to be at a station then the train leaves at the next move
- Directions...
  - Trains can travel in either direction
  - A train that looks like `zzzzzZ` is travelling *clockwise* as it passed the track "zero position"
  - A train that looks like `Zzzzzz` is travelling *anti-clockwise* as it passes the track "zero position"



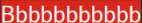

### Tracks

- All tracks are single continuous loops
- There are no ambiguous corners / junctions in Blaine's track layouts

All input is valid

## Example

In the following track layout:

- The "zero position" is 
- Train A is  and is at position 147
- Train B is  and is at position 288
- There are 3 stations denoted by  S



Good Luck!

DM

:-)