Problem Statement

You are watching a soccer match, and you wonder what the probability is that at least one of the two teams will score a prime number of goals. The game lasts 90 minutes, and to simplify the analysis, we will split the match into five-minute intervals. The first interval is the first five minutes, the second interval is the next five minutes, and so on. During each interval, there is a **skillOfTeamA** percent probability that team A will score a goal, and a **skillOfTeamB** percent probability that teamB will score a goal. Assume that each team will score at most one goal within each interval. Return the probability that at least one team will have a prime number as its final score.

Definition

Class:	PrimeSoccer
Method:	getProbability
Parameters:	int, int
Returns:	double
Method signature:	double getProbability(int skillOfTeamA, int skillOfTeamB)
(be sure your method is public)	

Notes

- The returned value must be accurate to within a relative or absolute value of 1E-9.
- A prime number is a number that has exactly two divisors, 1 and itself. Note that 0 and 1 are not prime.

Constraints

- **skillOfTeamA** will be between 0 and 100, inclusive.
- **skillOfTeamB** will be between 0 and 100, inclusive.

Examples

0)

```
50
50
Returns: 0.5265618908306351
```

1)

```
100
100
Returns: 0.0
```

Both teams will score a goal in each interval, so the final result will be 18 to 18.

2)

```
12
89
Returns: 0.6772047168840167
```