

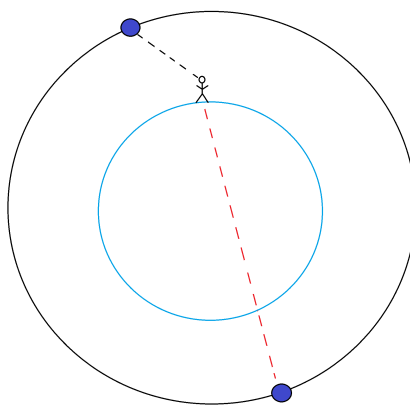
planarPositioning - MathGames

June 19, 2024

Difficulty: ★☆☆☆☆

Key words: Goniometry

NAPA (National Aeronautics and Plane Administration), an independent agency of some government in \mathbb{R}^2 , is discovering new planets all the time. PlaneX wishes to make a commercial GPS system for a couple of such planets. As 2-dimensional satellites are rather expensive, PlaneX needs your help to determine the minimal amount of satellites needed to make an accurate GPS system for every point on the planet. A satellite can measure the distance between itself and a GPS-device on the planet perfectly, but only if the line between the satellite and the GPS-device does not pass through the planet. You can assume that every satellite flies in a perfect circle around a planet. Also, all satellites fly at the same height.



You can only see the satellites above you, as you cannot look through the earth. Therefore in this example, you can see the satellite in the top left, but not satellite in the bottom right. Note that you are infinitesimally small, so in this exercise you do not have to keep your height in mind.

Input

- A single integer $1 \leq n \leq 100$, indicating the radius of the planet in kilometres.
- A single integer $1 \leq m \leq 100$, indicating the distance between the planet and any given satellite in kilometres.

Output

- A single integer: the minimum amount of satellites PlaneX needs to deploy.

Examples

Input	Output
1	5
100	

Input	Output
100 1	45