**2020 交大附中夏校结业考核附加题**

**施想**

**题目:**

Farmer John has been informed of the location of a fugitive cow and wants to catch her immediately. He starts at a point N (0 ≤ N ≤ 100,000) on a number line and the cow is at a point K (0 ≤ K ≤ 100,000) on the same number line. Farmer John has two modes of transportation: walking and teleporting.

\* Walking: FJ can move from any point X to the points 𝑋 − 1 or 𝑋 + 1 in a single minute.

\* Teleporting: FJ can move from any point X to the point 2 ∗ 𝑋 in a single minute.

If the cow, unaware of its pursuit, does not move at all, how long does it take for Farmer John to retrieve it?

**输入：** Line 1: Two space-separated integers: N and K

**输出：** Line 1: The least amount of time, in minutes, it takes for Farmer John to catch the fugitive cow.

**示例 1：**

**输入 5 17**

**输出 4**

**提示：**

The fastest way for Farmer John to reach the fugitive cow is to move along the following path: 5-10-9-18-17, which takes 4 minutes.

(2007 USACO Silver)

**Time Limit: 2000MS Memory Limit: 65536K**