Comrade Computer Operator
Problem ID: a02p09comrade

Your nation's prestigious reputation is being tarnished by the evil foreign media due to a slight mishap in one of its nucelar power plants. To prevent this from happening again, the wise leaders of your nation have given you the task to create a computer program that controls reactor temperature. At regular intervals, the temperature of the water in the reactor is measured. The last two measurements are given to the program, which then decides what should be done with the control rods in order to maintain an optimum operating temperature of $300°C$. The control logic is as follows:

- If the current temperature is below $300°C$ and the temperature is not rising then raise the control rods to increase temperature.

- If the current temperature is below $300°C$ but the temperature is rising then keep the control rods where they are.

- If the current temperature is exactly $300°C$ then keep the control rods where they are.

- If the current temperature is above $300°C$ and the temperature is not falling then lower the control rods to reduce temperature.

- If the current temperature is above $300°C$ but the temperature is falling then keep the control rods where they are.

- If the current temperature is $350°C$ or higher then initiate emergency shutdown procedures.

Can you write the program and save your nation's reputation?

Input

The input consists of two lines. The first line contains one integer a, the current temperature, where $0 \le a \le 400$. The second line contains one integer b, the previous temperature, where $0 \le b \le 349$.

Output

Depending on the pair of measurements, output `raise`, `keep`, `lower` or `shutdown`.

Sample Input 1	Sample Output 1
300 300	keep

Sample Input 2	Sample Output 2
290 289	keep

Sample Input 3	Sample Output 3
290 291	raise

Sample Input 4	Sample Output 4
301 302	keep

Sample Input 5

305 305	

Sample Output 5

lower

Sample Input 6

350 345	

Sample Output 6

shutdown