

Problem I. Car rally

A car covers n kilometers per day. How many days does it take to cover a route m kilometers long?

Input data

The program receives numbers n and m (integers, positive) as input.

Output

Print the answer to the problem.

Examples of

input data

700

750

output

2

input data

700

2100

output

3

```
int n = 0; // n = kilometers per day
int m = 0; // m = kilometers in route
int days = 0; // days to drive over route m, driving n kilometers per day
```

```
std::cin >> n >> m;
```

```
days = m / n; // add to days the # of 'loops' in whole numbers
```

```
if (m % n != 0) // if the route has extra kilometers not equally 'looped' by km/per day,
then add extra day to cover extra km
    days = days + 1;
```

```
std::cout << "It takes " << days << " days. " << std::endl;
```



```
std::cin >> n >> m;

days = (m + n - 1) / n;

std::cout << "It takes " << days << " days. " << std::endl;
```

ceiling

$$c = ((h - a) + (a - b) - 1) / (a - b);$$

$$c = (x + y) / y; \Leftrightarrow c = x / y + 1;$$

$$c = (x + y - 1) / y;$$

$$x \% y == 0 \Rightarrow (x + y - 1) / y = x / y$$

$$x \% y > 0 \Rightarrow (x + y - 1) / y = x / y + 1$$

$$x \% y == 0 \Rightarrow x = y * k \Rightarrow$$

$$(y * k + y - 1) / y = y * k / y + (y - 1) / y = k + 0 = k$$

$$x \% y > 0 \Rightarrow x = y * k + \text{remainder} \Rightarrow$$

$$(y * k + \text{remainder} + y - 1) / y =$$

$$= y * k / y + (\text{remainder} + y - 1) / y = k + 1$$