Jackson Tracks COVID-19!

Dr. Jackson is on his way to stop COVID-19 (just kidding)! Jackson wants to track the spread of COVID in different countries.

For each country, Jackson knows how many people already have COVID and the transmission rate in that country.

Instructions

Problem

When given the start number of people with COVID on Day 0 and the transmission rate (people per day). Determine the number of people with COVID after x amount of days.

Once a person has infected others, they still remain infected, but cannot infect more people.

Example

Starting Number on Day 0: 1
Infection Rate: 5 people per day
After 4 days → **781 people**

Day 0	Day 1	Day 2	Day 3	Day 4
1	5	25	125	625

Day 0 + Day 1 + Day 2 + Day 3 + Day 4
= 1 + 5 + 25 + 125 + 625
= **781**

Prompt

Starting Number on Day 0 → 1
Infection Rate: 10 people per day
After 10 days → ?