Problem 2. Bread Factory

As a young baker, you are baking the bread out of the bakery.

You have **initial energy 100 and initial coins 100**. You will be given **a string, representing the working day events**. Each event is separated with **'|'** (vertical bar): **"event1|event2|event3…"**

Each event contains event name or item and a number, separated by dash(**"{event/ingredient}-{number}"**)

- If the event is **"rest":** you gain energy, the number in the second part. But your energy **cannot exceed** your **initial energy (100)**. Print: **"You gained {0} energy."**.
  After that, print your current energy: **"Current energy: {0}."**.

- If the event is **"order"**: You've earned some coins, the number in the second part. Each time you get an order, your **energy decreases with 30 points.**
  - o If you have energy to complete the order, print: **"You earned {0} coins."**.
  - o If your energy drops below 0, you **skip the order** and **gain 50 energy points**. Print: **"You had to rest!"**.

- In any other case you are having an ingredient, you have to buy. The second part of the event, contains the coins you have to spent and remove from your coins.
  - o If you are not bankrupt **(coins <= 0)** you've bought the ingredient successfully, and you should print (**"You bought {ingredient}."**)
  - o If you went bankrupt, print **"Closed! Cannot afford {ingredient}."** and your bakery rush is over.

If you managed to handle all events through the day, print on the next three lines:

"Day completed!", **"Coins: {coins}"**, **"Energy: {energy}"**.
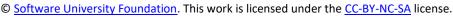
Input / Constraints

You receive a string, representing the working day events, separated with **'|'** (vertical bar): **"event1|event2|event3…"**.

Each event contains event name or ingredient and a number, separated by dash(**"{event/ingredient}-{number}"**)

Output

Print the corresponding messages, described above.

Examples

Input	Output
rest-2|order-10|eggs-100|rest-10	You gained 0 energy. Current energy: 100. You earned 10 coins. You bought eggs. You gained 10 energy. Current energy: 80. Day completed! Coins: 10 Energy: 80
Input	**Output**
order-10|order-10|order-10|flour-100|order-100|oven-100|order-1000	You earned 10 coins. You earned 10 coins. You earned 10 coins. You bought flour. You had to rest! Closed! Cannot afford oven.

… 1 package (1/4 ounce) active dry yeast

2-1/4 cups warm water (110° to 115°)

3 tablespoons sugar

1 tablespoon salt

2 tablespoons canola oil

6-1/4 to 6-3/4 cups all-purpose flour …