Exam1_A2-2: Check Phone Format and Get Suggested Pet

Objective: Basic String & List

Write a program that reads a phone number string and determines the person's pet from its score.

Phone Format Rules

The program input is a string in the format: (xxx)xxx-xxxx, e.g., (089)111-2222 (must be exactly 13 characters, with parentheses around the first 3 digits and a dash before the last 4 digits). Follow these steps to validate the input:

1. Verify that the input length is exactly 13 characters with parentheses around the first 3 digits and a dash before the last 4 digits. If this condition is not met, print **"Error1"**.
2. Remove "(", ")", and "-" to obtain the cleaned input.
3. Check that the cleaned input consists only of digits and is exactly 10 digits long. If this condition is not met, print **"Error2"**.

Hints:

- Hint1: "123".isdigit() = True, "A11".isdigit() = False
- Hint2: "123,45,678".replace(",","|") = "123|45|678

Phone Pet Recommendation

1. Remove the dashes to obtain a 10-digit number. Then, calculate the score using the formula below, where the digit positions are numbered from 1 (leftmost) to 10 (rightmost).

$$\text{Score} = \left(digit_2 \times 2 + digit_4 \times 4 + digit_6 \times 6 + digit_8 \times 8 + digit_{10} \times 10 \right) \bmod 100$$

2. Map the score to a one-word pet:
   - 0–19 ⟶ Cat
   - 20–39 ⟶ Dog
   - 40–59 ⟶ Bird
   - 60–79 ⟶ Rabbit
   - 80–99 ⟶ Fish

Example

- Input: (081)234-5678 --> Only numbers: 0812345678
- score = (8*2+2*4+4*6+6*8+8*10) % 100 = 176 % 100 = 76
- Since the score (76) is between 60 and 79, the pet is "Rabbit".

INPUT

A phone number string in the format (xxx)xxx-xxxx.

OUTPUT

If the phone number is valid, output the cleaned 10-digit number followed by "=" and its personality, e.g., "0812345678=Calm". If the input is invalid, output the corresponding error message ("Error1" or "Error2").

EXAMPLES

Input (from keyboard)	Output (on screen)	Explanation
0891112222	Error1	Incorrect length (length must be 13)
(088)-9111-2222	Error1	Incorrect length (length must be 13)
089-111-2222	Error1	Incorrect format; (xxx)xxx-xxxx
(089)111+2222	Error1	Incorrect symbol, must be "-".
(0AA)111-2222	Error2	The first part is not number.
(081)234-5678	0812345678=Rabbit	Score = (8*2+2*4+4*6+6*8+8*10) % 100 = 176 % 100 = 76 76 is between 60 – 79, so the pet = "Rabbit"
(888)888-8888	8888888888=Bird	Score = (8*2+8*4+8*6+8*8+8*10) % 100 = 240 % 100 = 40 40 is between 40 – 59, so the pet = "Bird"

TESTCASES in Grader

Testcases will be grouped. Each group has the following criteria:

Testcases quantity	Test case characteristics
40%	Check phone format
60%	Get correct pet