# OUTPUT:

Need to find the amount of ducks that will fit in the reservoir, printed as a sentence formatted something like “A “ + size\_of\_reservoir + “ sqft reservoir can fit “ + amount\_of\_ducks + “ ducks in it.”

# INPUT:

Data needed from user: size of reservoir in sqft, stored as size\_of\_reservoir\_sqft

Prompt the user with a sentence like “How big is the reservoir? Please answer in square feet.”

# PROCESS:

We will make the size of a rubber duck a constant, as I assume we will be having several thousand of the same duck.

Taking the size of the reservoir from the user, I will first convert it from square feet to square inches. This makes it easier to work with, as the size of the duck will be in square inches. I’m only concerned about the surface area of both, because the question is not asking us to completely fill the reservoir, only cover it.

size\_of\_reservoir\_sqin = size\_of\_reservoir\_sqft \* 144

Now that we have the size of the reservoir in square inches, we simply divide that by the size of the duck to find the number of ducks that will fit. We will define this constant in pseudo code.

# PSEUDO-CODE:

Declare the size of the duck as a constant in square inches.

SIZE\_OF\_DUCK\_SQIN = 75

Declare the conversion process from square feet to square inches as a constant

SQFT\_TO\_SQIN\_CONVERSION = 144

Get the input from the user, and store the size of the reservoir in a variable named size\_of\_reservoir\_sqft

Convert the square footage of the reservoir into square inches to make it easier to work with the ducks. Multiply size\_of\_reservoir\_sqft by 144 to convert to size\_of\_reservoir\_sqin

Find the amount of ducks that can fit into the reservoir. amount\_of\_ducks will be equal to size\_of\_reservoir\_sqin divided by SIZE\_OF\_DUCK\_SQIN

Print the answer to the user: A [size\_of\_reservoir\_sqft] square foot reservoir would need [amount\_of\_ducks] ducks to fully cover it.

# DESK CHECK

|  |  |
| --- | --- |
| INPUT | RESULT |
| 10 | 19.2 |
| 10000 | 19200.0 |
| -1 | Invalid input. Please enter a positive number. |
| 25000.25 | 48000.0 |
| -900 | Invalid input. Please enter a positive number. |
| 0.00 | 0.00 |
| Eight | Invalid input. Please input only numbers. |