Homework 1b: Calculating How Old Your Dog is in Human Years

This assignment is designed to give you practice writing code and applying lessons and topics for the current module.

This homework deals with the following topics:

- Getting user input
- Error checking
- Variables & data types
- Conditionals

The Assignment

In this assignment, you will write a program that calculates a dog's age in human years.
The program will prompt the user for an age in dog years and calculate that age in human years. Allow for int or float values, but check the user's input to make sure it's valid -- it should be numeric and positive. Otherwise, let the user know their input is not valid.

You can use the following rules to approximately convert a medium-sized dog's age to human years:
- For the first year, one dog year is equal to 15 human years
- For the first 2 years, each dog year is equal to 12 human years
- For the first 3 years, each dog year is equal to 9.3 human years
- For the first 4 years, each dog year is equal to 8 human years
- For the first 5 years, each dog year is equal to 7.2 human years
- After that, each dog year is equal to 7 human years. (Note: This means the first 5 dog years are equal to 36 human years (5 * 7.2) and the remaining dog years are equal to 7 human years each.)

Print the result in the following format, substituting for <dog_age> and <human_age>: "The given dog age <dog_age> is <human_age> in human years." Round the result to 2 decimal places. Note: If there is a 0 in the hundredths place, you can drop it, e.g. 24.00 can be displayed as 24.0.

For example:
- If the user enters 2, the program will print: "The given dog age 2 is 24.0 in human years."
- If the user enters 3, the program will print: "The given dog age 3 is 27.9 in human years."
- If the user enters 4.5, the program will print: "The given dog age 4.5 is 32.4 in human years."
- If the user enters 12.1, the program will print: "The given dog age 12.1 is 85.7 in human years."

Considering invalid inputs:
- Your program must ask the user for an age in dog years - hint: use the input() function

- We are going to test invalid inputs - make sure that your code can handle negative value inputs and non-numerical inputs!
- For invalid inputs, make sure that your printed response adheres to the following:
    - If a text-based input is provided, make sure your response contains the word '**invalid**'. For example, if the user doesn't input a number, print "<age> is invalid.", substituting for <age>.
    - If a negative input is provided, make sure your response contains the word '**negative**'. For example, if the user inputs a negative number, print "Age cannot be a negative number."

Submission

To complete the assignment, complete the provided Python file. **You will not submit the assignment.**

Evaluation

This assignment will not be graded.