CITC-1301 Introduction to Programming

Chapter 3 Lab – Human to Dog Years

It is often said 1 human-year is equivalent to 7 dog-years. However, this simple conversion fails to recognize that dogs reach adulthood in their 2nd year of life. As a result, the American Kennel club suggests the following to calculate a dog's age in human-years:

- 15 human years are equivalent to the 1st year of a dog's life.
- A dog's 2nd year is equivalent to 9 human-years.
- After a dog's 2nd year, each human-year is approximately 5 dog years.

Write a program that implements the conversion from human-years to dog-years as described above. Round the output of human-years and dog-years to one decimal place. Output an error message if the user enters a negative number for human-years.

Ensure that your program works correctly regardless of a dog's age in human-years.

Example outputs:

```
This program calculates a dog's approximate age in "dog years" based on human years.

Dog's age in human years? 1.5 [ENTER]

A dog with a human age of 1.5 years is 19.5 in dog years.
```

```
This program calculates a dog's approximate age in "dog years" based on human years.

Dog's age in human years? 12.75 [ENTER]

A dog with a human age of 12.8 years is 77.8 in dog years.
```

```
This program calculates a dog's approximate age in "dog years" based on human years.

Dog's age in human years? -1 [ENTER]

Human years must be a positive number.
```

Test Cases

Case	Human Age	Dog Age	Success?
1	0.5	7.5	☐
2	1	15.0	☐
3	1.5	19.5	☐
4	2	24.0	☐
5	2.5	26.5	☐
6	5	39.0	☐
7	10	64.0	☐
8	15	89.0	☐
9	20	114.0	☐

Submission Instructions

- Upload your Python script (i.e., your .py file) to the appropriate dropbox on eLearn.