Activity: Functions

These exercises are based on the variables exercises so you may start from those or start from scratch.

The Fortune Teller

Why pay a fortune teller when you can just program your fortune yourself?

• Write a function named

tellFortune

that:

- takes 4 arguments: number of children, partner's name, geographic location, job title.
- outputs your fortune to the screen like so: "You will be a X in Y, and married to Z with N kids."
- Call that function 3 times with 3 different values for the arguments.

The Puppy Age Calculator

You know how old your dog is in human years, but what about dog years? Calculate it!

• Write a function named

calculateDogAge

that:

- takes 1 argument: your puppy's age.
- calculates your dog's age based on the conversion rate of 1 human year to 7 dog years.
- outputs the result to the screen like so: "Your doggie is NN years old in dog years!"
- Call the function three times with different sets of values.
- **Bonus**: Add an additional argument to the function that takes the conversion rate of human to dog years.

The Lifetime Supply Calculator

Ever wonder how much a "lifetime supply" of your favorite snack is? Wonder no more!

• Write a function named

calculateSupply

that:

- takes 2 arguments: age, amount per day.
- o calculates the amount consumed for rest of the life (based on a constant max age).
- outputs the result to the screen like so: "You will need NN to last you until the ripe old age of X"
- Call that function three times, passing in different values each time.
- **Bonus**: Accept floating point values for amount per day, and round the result to a round number.

The Geometrizer

Create 2 functions that calculate properties of a circle, using the <u>definitions</u> here.

Create a function called calccircumfrence:

- Pass the radius to the function.
- Calculate the circumference based on the radius, and output "The circumference is NN".

Create a function called calcarea:

- Pass the radius to the function.
- Calculate the area based on the radius, and output "The area is NN".

The Temperature Converter

It's hot out! Let's make a converter based on the steps here.

Create a function called celsiusToFahrenheit:

- Store a celsius temperature into a variable.
- Convert it to fahrenheit and output "NN°C is NN°F".

Create a function called fahrenheitToCelsius:

- Now store a fahrenheit temperature into a variable.
- Convert it to celsius and output "NN°F is NN°C."