

Bonus JavaScript Function Exercises

Create an *index.html* file, and for each exercise, link a separate javascript file.
Run the functions with different argument values to test it.

Temperature Converter

Use the code from exercise 3 in the exercise runner (converting from Celsius to Fahrenheit) and wrap it in function.

1. The function will receive the temperature in Celius as an argument and return the temperature in Fahrenheit.

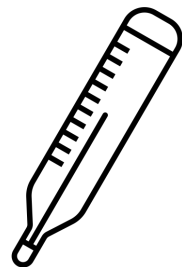
```
convertToFahrenheit(12)  
convertToFahrenheit(-4)
```

2. Make the function smarter by adding a second argument which specifies the units into which the temperature should be converted:

'C' - Convert the first argument from Fahrenheit to Celsius

'F' - Convert the first argument from Celsius to Fahrenheit

```
convertTemprature(13, 'C')  
convertTemprature(-3, 'F')
```



Dog Age Calculator

They say that for a dog, each human year is equivalent to 7 years except for the first year, which is equal to 14 years.

1. Based on these assumptions, write a function which takes the dog's age in human years as an argument, and returns its age in dog years.
2. Run the function several times with different argument values and display the returned result in a formatted message (i.e. - "3 dog years are equal to 28 human years...").
3. Other animals have a different ratio of human to animal years. Write another function which receives an additional argument - the ratio of an animal's years to human years. Use the same calculation to return the animal's age in animal years (the first year is again - twice as much as the following years).

```
calculateDogAge(1)
```

```
calculateDogAge(0.5)
```

```
calculateAnimalAge(12, 6)
```



Circle Circumference and Area

1. A circle's circumference (C) is calculated by the formula $C = 2\pi r$.
Write a function which receives the circle's radius as an argument and returns its circumference.
2. A circle's area (A) is calculated by the formula $A = \pi r^2$.
Write a function which receives the circle's radius as an argument and returns its area.
3. Add a validation in both functions, to check that the argument is greater than zero. If the validation fails, simply exit the functions.

What will the return value of the functions be when the validation fails?

You can use 3.14 as an approximate value for π .

```
calculateCircumference(11)  
calculateArea(0.65)
```

