**JavaScript coding challenges:**

**Time: 45 minutes**

1. **Calculate the Number of Days Between Two Dates**

* Create a function named *findNumberOfDays*
* Take two dates as input parameter and return the difference
* Print the output in console

1. **The Farm Problem**

In this challenge, a farmer is asking you to tell him how many legs can be counted among all his animals. The farmer breeds three species:

* chickens = 2 legs
* cows = 4 legs
* pigs = 4 legs

The farmer has counted his animals and he gives you a subtotal for each species. You have to implement a function that returns the **total number of legs** of all the animals.

**Examples**

animals(2, 3, 5) ➞ 36

animals(1, 2, 3) ➞ 22

animals(5, 2, 8) ➞ 50

**Notes**

* Don't forget to return the result.
* The order of animals passed is animals(chickens, cows, pigs).
* Remember that the farmer wants to know the **total number of legs** and not the total number of animals.

1. **Let's Fuel Up!**

A vehicle needs 10 times the amount of fuel than the distance it travels. However, it must always carry a minimum of 100 fuel before setting off.

Create a function which calculates the amount of fuel it needs, given the distance.

### Examples

calculateFuel(15) ➞ 150

calculateFuel(23.5) ➞ 235

calculateFuel(3) ➞ 100

### Notes

* Distance will be a number greater than zero.
* Return 100 if the calculated fuel turns out to be less than 100.

1. **Travelling Salesman Problem**

A salesman has a number of cities to visit. They want to calculate the total number of possible paths they could take, visiting each city once before returning home. Return the total number of possible paths a salesman can travel, given n cities.

If we have cities A, B and C, possible paths would be:

A -> B -> C

A -> C -> B

B -> A -> C

B -> C -> A

C -> B -> A

C -> A -> B

... which gives us 6 as the possible number of paths.

### Examples

paths(4) ➞ 24

paths(1) ➞ 1

paths(9) ➞ 362880

1. **Up the Hill, Down the Hill**

If a person traveled up a hill for 18mins at 20mph and then traveled back down the same path at 60mph then their average speed traveled was **30mph**.

Write a function that returns the **average speed** traveled given an uphill time, uphill rate and a downhill rate. Uphill time is given in **minutes**. Return the rate as an integer (**mph**). No rounding is necessary.

### Examples

aveSpd(18, 20, 60) ➞ 30

aveSpd(30, 10, 30) ➞ 15

aveSpd(30, 8, 24) ➞ 12

**Simple Books API Documentation:**

[**https://github.com/saswata-bhattacharya/postman-assignments/blob/main/Simple%20Books%20API%20-%20Documentation.md**](https://github.com/saswata-bhattacharya/postman-assignments/blob/main/Simple%20Books%20API%20-%20Documentation.md)

**POSTMAN TESTS**

**Time: 60 mins**

**Assignment 1:** Requests in Postman

Using Simple Book API documentation, create the following requests using different http methods in POSTMAN -

1. Create a Collection named as “Simple Books”
2. Get a single book
3. CREATE an Order to order that book
4. GET the order you have created
5. UPDATE the order – update your name
6. DELETE the order

**Assignment 2:** Postman Tests

1. Create a request to return the status of Simple Books API
   1. Write a test to validate the status of response
   2. Print the response body in postman console.
   3. Write a test to validate the Status is OK
2. Order- Automate full flow in Postman with possible test validations
   1. Create an order and write a test to validate the status of response
   2. Create a Global variable “*OrderID*” and capture the order id from the response body and set it that variable.
   3. Use Order ID to fetch order details
   4. Update Order ID
   5. Add another 2 orders
   6. Get all orders and print the last order details.
   7. Delete Orders