

JavaScript ★

Normal



This is a fun and practical challenge focused on the need to make up the correct change in the most efficient way possible for someone who has bought something from a shop.

The challenge can be done using any currency you choose which will have it's own set of notes and coins.



Using JavaScript, read in a numeric value from your customer and output the smallest correct amount of notes and coins needed to make that value.

Hard

JavaScript ★★

Everything at Normal, plus:

Allow the customer to specify how many items they are buying and the prices for each of them, as well as how much they are going to pay. Then calculate how much change is owed to them and use that value to find their change in notes and coins. If they don't pay enough money to cover the costs of their items, ask them for more!



JavaScript ★★★

Ultra

Everything at Hard, plus:

Add VAT of 23% to all of their purchases and also apply a special offer whenever the same price is entered three or more times which gives the customer the third item at half price!

Tools

Things to remember from Sushi Cards

JavaScript

`Math.floor()` – rounds down a value to the nearest integer.

`Array.push()` – appends a value to an array.

`prompt()` – prompts the user for input and reads it in.

`alert()` – displays data to the user in an alert box.

Tips

Ideas, help, etc.

A good place to start is by looking at what notes and coins are available in the currency of your choice and modelling them in a data structure (such as an array) that you can use in your calculations.

Tricks

New code you'll need to know

JavaScript

```
// rounds num to two decimal places
Math.round(num * 100) / 100;
```