## Homework: Credit Card Validation

You're starting your own credit card business. You've come up with a new way to validate credit cards with a simple function called <a href="validateCreditCard">validateCreditCard</a> that returns <a href="true">true</a> or <a href="false">false</a>.

Here are the rules for a valid number:

- Number must be 16 digits, all of them must be numbers
- You must have at least two different digits represented (all of the digits cannot be the same)
- The final digit must be even
- The sum of all the digits must be greater than 16

The following credit card numbers are valid:

- 9999-9999-8888-0000
- 6666-6666-6666-1666

The following credit card numbers are invalid:

- a923-3211-9c01-1112 invalid characters
- 4444–4444–4444 only one type of number
- 1111–1111–1111–1110 sum less than 16
- 6666–6666–6666 odd final number

Hint: Remove the dashed from the input string before checking if the input credit card number is valid.

**Bonus:** Return an object indicating whether the credit card is valid, and if not, what the error is

```
{ valid: true, number: 'a923-3211-9c01-1112' }
{ valid: false, number: 'a923-3211-9c01-1112', error:
'wrong_length' }
```

**Double Bonus:** Make your credit card scheme even more advanced! What are the rules, and what are some numbers that pass or fail? Ideas: check expiration date! Check out the Luhn Algorithm for inspiration.