Example from Cucumber: <http://cukes.info/>

<https://github.com/cucumber/cucumber-js#install>

1: Feature: Some terse yet descriptive text of what is desired  
 2: Textual description of the business value of this feature  
 3: Business rules that govern the scope of the feature  
 4: Any additional information that will make the feature easier to understand  
 5:   
 6: Scenario: Some determinable business situation  
 7: Given some precondition  
 8: And some other precondition  
 9: When some action by the actor  
10: And some other action  
11: And yet another action  
12: Then some testable outcome is achieved  
13: And something else we can check happens too  
14:   
15: Scenario: A different situation  
16: ...

**User Story 1**

**Feature:** As a user with multiple operation,

I would like the calculator to follow the order of operation, i.e *PEMDAS* (*P*arentheses, *E*xponents, *M*ultiplication, *D*ivision, *A*ddition, *S*ubtraction).

So that I don’t have to perform individual operations.

**Scenario:** Multiple operations 1

**Given** Enter 3 into the calculator

**And** Press ADD

**And** Enter (

**And** Enter 6

**And** Press \*

**And** Enter 8

**And** Enter )

**And** Press =

**Then** it should display 51

**Scenario:** Multiple operations 2

**Given** Enter 5 into the calculator

**And** Press Subtract

**And** Enter (

**And** Enter 6

**And** Press Divide

**And** Enter 8

**And** Enter )

**And** Press Pie

**Then** it should display 2.6438

**Scenario:** Performing multiple operation

Given I perform multiple operations simultaneously

When I press enter

Then the result should be calculated following the PEMDAS rule

**User Story 2**

Feature: Consistent Decimal Handling

As a user working with moderately to very small numbers

I want the calculator to handle the full range of numbers from MIN to MAX

So that I can use the results with confidence that they are correct

Scenario: Entering Very Small Numbers 1

Given I have entered 10

And I have pressed caret (^)

And I have entered 5

And I have pressed negative

When I press equals

Then the display should update to 1e-5

Scenario: Entering Very Small Numbers 2

Given I have entered 10

And I have pressed caret (^)

And I have entered 22

And I have pressed negative

When I press equals

Then the display should update to 1e-22

Scenario: Multiplication of Moderately Small Numbers

Given I have entered 0.0001

And I have pressed multiply

And I have entered 0.0001

When I press equals

Then the display should update to 1e-8

Scenario: Multiplication of Very Large Numbers

Given I have entered 10000000

And I have pressed multiply

And I have entered 10000000

When I press equals

Then the display should update to 1e14

**User Story 3**

Feature: Minimum Complexity

As a primary school teacher presenting the calculator for the first time

I want the calculator to present the simplest answer possible

So that extraneous decimals do not confuse my young students

Scenario: Division with Non-Decimal Numbers

Given I have entered 6

And I have pressed divide

And I have entered 2

When I press equals

Then the display should update to 3

And not 3.0

Scenario: Subtraction with Decimals that Resolve to Zero

Given I have entered 3.5

And I have pressed subtract

And I have entered 1.5

When I press equals

Then the display should update to 2

And not 2.0

Scenario: Subtraction with Decimals that Simplify

Given I have entered 5.45

And I have pressed subtract

And I have entered 2.05

When I press equals

Then the display should update to 3.4

And not 3.40

**User Story 4**

Feature: Error Management

As a user with an error

I want the calculator to reset automatically when valid input is submitted

So that I do not have to clear errors before starting the next calculation

Scenario: NaN Math

Given I have entered 1

And I have pressed divide

And I have entered 3

And I have pressed equals

And I have pressed decimal

And I have entered any number

And a “NaN” error is displayed

When I press divide

And I enter 3

And I press equals

Then the result should be 0

Scenario: Imaginary Numbers

Given I have entered 1

And I have pressed negative

And I have pressed square root

And an “Error” error is displayed

When I press squared

Then the result should be 0

User Story 5

Feature: As a user who has just completed an equation without errors,  
I want the calculator to reset automatically when valid input is submitted,  
So that I do not have to clear answers before starting the next calculation.

Scenario: Completed calculation

Given I have pressed ‘=’

And the calculator is displaying the result

When I press any number

Then the calculator should start a new operation