```
it('Expected result 5 FAIL', function () {
```

```js
exports.add = function(i, j) {
    return i + j;
```

LAB2_MOCHA_TEST

- app •
- JS calculator.js U
- node_modules •
- test •
- JS calculatorTest.js U
- {} package-lock.json U
- {} package.json U

TERMINAL · PROBLEMS · OUTPUT · DEBUG CONSOLE

> powershell

```
  App
    Add
      ✓ Expected result 7 PASS
      1) Expected result 8 FAIL
    Sub
      ✓ Expected result 3 PASS
      2) Expected result 5 FAIL
    Mul
      ✓ Expected result 10 PASS
      3) Expected result 12 FAIL
    Div
      ✓ Expected result 5 PASS
      4) Expected result 2 FAIL


  4 passing (16ms)
  4 failing

  1) App
       Add
         Expected result 8 FAIL:

      AssertionError: expected 7 to equal 8
      + expected - actual


      at processImmediate (internal/timers.js:462:21)

  3) App
       Mul
         Expected result 12 FAIL:

      AssertionError: expected 10 to equal 12
      + expected - actual

      -10
      +12

      at Context.<anonymous> (test\calculatorTest.js:48:20)
      at processImmediate (internal/timers.js:462:21)

  4) App
       Div
         Expected result 2 FAIL:

      AssertionError: expected 5 to equal 2
      + expected - actual

      -5
```

OUTLINE

TIMELINE

```
∨ app
  JS calculator.js                    U
> node_modules
∨ test
  JS calculatorTest.js                U
{} package-lock.json                  U
{} package.json                       U
```

```javascript
1   const assert = require('chai').assert;
2   const add = require('../app/calculator').add;
3   const mul = require('../app/calculator').mul;
4   const div = require('../app/calculator').div;
5   const sub = require('../app/calculator').sub;
6
7
8   describe('App', function () {
9
10      describe('Add', function () {
11
12          it('Expected result 7 PASS', function () {
13              let result = add(5, 2)
14              assert.equal(result, 7)
15          })
16
17          it('Expected result 8 FAIL', function () {
18              let result = add(5, 2)
19              assert.equal(result, 8)
20          })
21
22      })
23
24      describe('Sub', function () {
25
26          it('Expected result 3 PASS', function () {
27              let result = sub(5, 2)
28              assert.equal(result, 3)
29          })
30
31          it('Expected result 5 FAIL', function () {
32              let result = sub(5, 2)
33              assert.equal(result, 5)
34          })
35
36      })
37
```

```javascript
1   exports.add = function(i, j) {
2       return i + j;
3   };
4
5   exports.mul = function(i, j) {
6       return i * j;
7   };
8
9   exports.div = function(i, j) {
10      return i / j;
11  };
12
13  exports.sub = function(i, j) {
14      return i - j;
15  };
```

```javascript
                      let result = sub(5, 2)
                      assert.equal(result, 5)
                  })

              })

          describe('Mul', function () {

              it('Expected result 10 PASS', function () {
                  let result = mul(5, 2)
                  assert.equal(result, 10)
              })

              it('Expected result 12 FAIL', function () {
                  let result = mul(5, 2)
                  assert.equal(result, 12)
              })

          })


          describe('Div', function () {

              it('Expected result 5 PASS', function () {
                  let result = div(10, 2)
                  assert.equal(result, 5)
              })

              it('Expected result 2 FAIL', function () {
                  let result = div(10, 2)
                  assert.equal(result, 2)
              })

          })

      })
```

```javascript
exports.add = function(i, j) {
    return i + j;
};

exports.mul = function(i, j) {
    return i * j;
};

exports.div = function(i, j) {
    return i / j;
};

exports.sub = function(i, j) {
    return i - j;
};
```