

Arrange, Act, Assert:

```
describe Oystercard do
  it 'something' do
    expect(subject.method).to eq(something)
  end
end
```

Eg. Used in Oystercard to say the card starts with a balance of 0

```
it 'expect the card to have zero balance' do
  expect(subject.balance).to eq(0)
end
```

Error: 1) Oystercard has initial balance

Failure/Error: expect(subject.balance).to eq 0

NoMethodError:

undefined method `balance' for #<Oystercard:0x007fb811106ca8>
./spec/oystercard_spec.rb:5:in `block (2 levels) in <top (required)>'

Code response to the error:

Before refactoring:

```
def balance
  0
end
```

After refactoring:

```
attr_reader :balance
```

```
def initialize
  @balance = 0
end
```

```
describe '#top_up' do
```

```
  it { is_expected.to respond_to(:method).with(1).argument }
end
```

Eg. Used in Oystercard to tell the Oystercard that top_up has 1 argument

```
it { is_expected.to respond_to(:top_up).with(1).argument }
```

Error: 1) Oystercard#top_up should respond to #top_up with 1 argument

Failure/Error: it { is_expected.to respond_to(:top_up).with(1).argument }

expected #<Oystercard:0x007f8bf29fd8e8 @balance=0> to respond

to :top_up with 1 argument

./spec/oystercard_spec.rb:10:in `block (3 levels) in <top (required)>'

Code response to the error:

```
def top_up(amount)
```

```
end
```

```
describe '#top_up' do
  it { is_expected.to respond_to(:method).with(1).argument }
```

```
it 'can top up the balance' do
  expect{ subject.top_up 1 }.to change{ subject.balance }.by 1
end
```

Eg. Used in Oystercard to tell the Oystercard to top_up by x amount

```
expect{ subject.top_up 1 }.to change{ subject.balance }.by 1
```

Code to go with test:

```
def top_up(amount)
  @balance = @balance + amount
end
```

```
expect{ subject.method(argument) }.to raise_error 'what causes the error'
```

Eg Used in Oystercard to set a maximum balance

```
it 'raises an error if the maximum balance is exceeded' do
  maximum_balance = Oystercard::MAXIMUM_BALANCE
  subject.top_up(maximum_balance)
  expect{ subject.top_up 1 }.to raise_error 'Maximum balance exceeded'
end
```

Error: 1) Oystercard#top_up raises an error if the maximum balance is exceeded

Failure/Error: maximum_balance = Oystercard::BALANCE_LIMIT

NameError:

uninitialized constant Oystercard::BALANCE_LIMIT

./spec/oystercard_spec.rb:18:in `block (3 levels) in <top (required)>'