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Launch School
Introduction to Programming With JavaScript
Variables – Exercises

1: This exercise asks us to write a program named greeter.js that greets 'Victot' three times without hard coding 'Victor' in each greeting. I did so as follows:

```
let name = 'Victor';
console.log(`Good Morning, ${name}.`);
console.log(`Good Afternoon, ${name}.`);
console.log(`Good Evening, ${name}.`)
```

2: This exercise asks us to write a program named age.js that includes someone's age and then calculates and reports the future age in 10, 20, 30, and 40 years. I did this as follows:

```
let age = 26;
console.log(`You are ${age} years old.`);
console.log(`In 10 years, you will be ${age + 10} years old.`);
console.log(`In 20 years, you will be ${age + 20} years old.`);
console.log(`In 30 years, you will be ${age + 30} years old.`);
console.log(`In 40 years, you will be ${age + 40} years old.`);
```

3: This exercise asks us what we get if we run the following code:

```
{
  let foo = 'bar';
}

console.log(foo);
```

The answer is that because the variable foo was declared inside curly braces it only has scope inside the block defined by those curly braces (i.e. the varaiable is not defined outside the block it was defined in), and hence trying to log foo to the console will throw a ReferenceError.

4: This exercise asks us what we get when we run the following code:

```
const NAME = 'Victor';
console.log('Good Morning, ' + NAME);
console.log('Good Afternoon, ' + NAME);
console.log('Good Evening, ' + NAME);

NAME = 'Joe';
console.log('Good Morning, ' + NAME);
console.log('Good Afternoon, ' + NAME);
console.log('Good Evening, ' + NAME);
```

The answer is that the the strings “Good Morning, Victor”, “Good Afternoon, Victor”, “Good Evening, Victor” will be logged to the console and then a TypeError will be thrown because we are trying to reassign a constant.

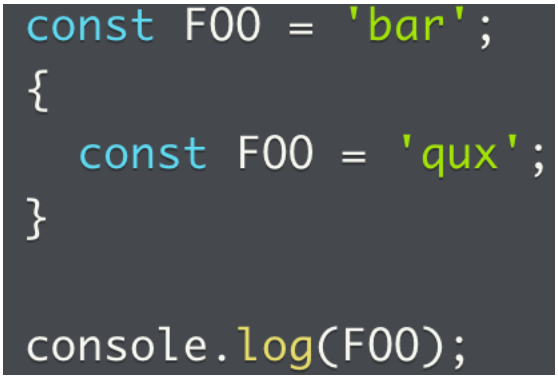
5: This exercise asks us what we get when we run the following code:

```
let foo = 'bar';
{
  let foo = 'qux';
}

console.log(foo);
```

The answer is that the value ‘bar’ will be logged to the console. This is because the variable foo declared in the braces only has local scope while the variable foo declared at the top of the program has global scope.

6: This exercise asks us whether the following code will produce an error:



The answer is that an error will not be produced. This is because the line inside the curly braces is not a reassignment but rather a declaration of a locally scoped variable.