

Practice Exercise

Review Questions

1. The three forms of `if` statement in JavaScript are_____.
2. The syntax of JavaScript `if` statement is_____.
3. How to write an `if` statement for executing some code if “i” is NOT equal to 5?_____.
4. The syntax of JavaScript `if-else` statement is_____.
5. What does the following expression return?_____.

```
1 4 > 1;
```
6. What does the following expression return?_____.

```
1 ‘chatty’ == ‘chatty’;
```
7. What does the following expression return?_____.

```
1 !false
```
8. What does the following code return?_____.

```
1 var blue = [‘da ba dee da ba die’];  
2 blue === blue;
```
9. What does the following statement return?_____.

```
1 [1, 89] === [1, 89];
```
10. The loops are used to iterate the piece of code.(Yes / No)_____.
11. The syntax of `for` loop is_____.
12. The JavaScript `while` loop iterates the elements for the infinite number of times mostly.(True / False)_____.
13. The syntax of `do while` loop is_____.

14. What are the three important manipulations done in a **for** loop on a loop variable?_____.
15. $A \text{ ? } B : C$ is equivalent to_____.

Exercises

- Write the expected output, or compiler errors if any, for each of the following programs in the box provided below each program.
- Then execute the programs and check your answers.
- Then answer the questions given below.

program 1

```
1  if (5 > 10) {  
2      document.write('Not so sure about this');  
3  } else {  
4      document.write('walking dead');  
5  }
```

Q1: What will be the output for the above code snippet?

Q2: What will be the output if condition in **if** is changed to $5 === 10$?

Q3: What will be the output if condition in **if** is changed to $5 \geq 10$?

Program 2

```
1  if ('candy' === 8) {  
2      document.write('do something with your life');  
3  } else if ('blah' === 'blah') {  
4      document.write('just chill, have fun');  
5  } else {  
6      document.write('people are strange');  
7  }
```

Q1: What will be the output for the above code snippet?

Q2: What will be the output if condition in `if` is changed to `"candy" === "8"`?

Program 3

```
1  if (``) {  
2      document.write('program more');  
3  } else if ('cool') {  
4      document.write('party hard!');  
5  } else {  
6      document.write('blah');  
7  }
```

Q1: What will be the output for the above code snippet?

Q2: What happens if line 1 is changed to `if("hard")` {?

Program 4

```
1  var result = 0;  
2  for (var i = 0; i < 5; i++) {  
3      result += i;  
4  }  
5  document.write(result);
```

Q1: What will be the output for the above code snippet?

Q2: What happens if the expression in `for` loop is changed to `i > 5`?

Q3: What will be the output if line 3 is changed to `result *= i`;

Q4: What happens if line 2 is changed to `for (var i = 0; i < 5;) {?`

Program 5

```

1 while (a != 0) {
2     if (a == 1)
3         continue;
4     else
5         a++;
6     document.write(a);
7 }

```

Q1: What will be the role of the `continue` keyword in the above code snippet?

Q2: What will be the output if `a = 2`?

Q3: What will be the output if line 5 is changed to `a--`; for `a = 3`?

Program 6

```

1 var i = 2 ;
2 while (i <= 10) {
3     i = i + 3;
4 }

```

Q1: What will be the value of `i` at the end of `while` loop?

Program 7

```

1 <script>
2     var i = 21;
3     do{
4         document.write(i + "<br/>");
5         i++;
6     }while (i <= 25);
7 </script>

```

Q1: What will be the output for the above code snippet?

Q2: What will be the output if the condition in line 6 is changed to `i >= 25`?

Q3: What happens if line 5 is changed to `i--`;

Additional Exercises

1. Use a `for` loop to print out the odd numbers from 1 to 20.
2. Use a `while` loop to print out the even numbers from 1 to 20.
3. Given a number, if the number is a multiple of 3 print “Fizz”. If the number is multiple of 5 print “Buzz”. If the number is multiple of 3 and 5 print “FizzBuzz”. In all other cases, print the number it-self.
4. Write a program to print sum of digits of a given number.
5. Write a program to check whether a particular number is perfect square or not.
6. Write a program to print prime numbers in a given range.
7. Write a program that prints fibonacci series.