**Vendor:**Microsoft

**Exam Code:**98-382

**Exam Name:**Introduction to Programming Using JavaScript

**Version:**Demo

**QUESTION 1**

HOTSPOT

You need to evaluate the following code segment. Line numbers are included for reference only.

```
01 var n;
02 console.log(typeof n);
03 var a = "3.4";
04 console.log(typeof a);
05 var textArray = ["Welcome Back", "Enter a Name", "Incorrect Answer"];
06 console.log(typeof textArray);
07 var c = 2.4;
08 console.log(typeof c);
09 var tag = null;
10 console.log(typeof tag);
```

Use the drop-down menus to select the answer choice that answers each question based on the information presented in the code segment.

Hot Area:

# Answer Area

What does the `console.log` function on line 02 write to the console?

| |
|---|
| string |
| array |
| object |
| number |
| undefined |

What does the `console.log` function on line 04 write to the console?

| |
|---|
| string |
| array |
| object |
| number |
| undefined |

What does the `console.log` function on line 06 write to the console?

| |
|---|
| string |
| array |
| object |
| number |
| undefined |

What does the `console.log` function on line 08 write to the console?

| |
|---|
| string |
| array |
| object |
| number |
| undefined |

What does the `console.log` function on line 10 write to the console?

| |
|---|
| string |
| array |
| object |
| number |
| undefined |

Correct Answer:

## Answer Area

What does the `console.log` function on line 02 write to the console?

| ▼ |
|---|
| string |
| array |
| object |
| number |
| **undefined** |

What does the `console.log` function on line 04 write to the console?

| ▼ |
|---|
| **string** |
| array |
| object |
| number |
| undefined |

What does the `console.log` function on line 06 write to the console?

| ▼ |
|---|
| string |
| **array** |
| object |
| number |
| undefined |

What does the `console.log` function on line 08 write to the console?

| ▼ |
|---|
| string |
| array |
| object |
| **number** |
| undefined |

What does the `console.log` function on line 10 write to the console?

| ▼ |
|---|
| string |
| array |
| **object** |
| number |
| undefined |

---

**QUESTION 2**

DRAG DROP

You are creating a web page that requests a username.

You create the following HTML form:

```
<form id="credentials" action="#" method="get">
    <p>Username: <input type="text" id="username" /></p>
    <input type="button" onclick=" getUsername()" value="Submit">
</form>
```

You need to write a function that retrieves the username from the form.

How should you complete the code? To answer, drag the appropriate code segments to the correct locations. Each function may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view

content.

NOTE: Each correct selection is worth one point.

Select and Place:

**Code Segments**

| document | firstChild | forms | HTMLDocument |
|---|---|---|---|

| innerHTML | value | window | |

**Answer Area**

```
function getUsername() {
    var username = [          ] . [          ] .credentials.username. [          ] ;
    alert('Welcome, ' + username);
}
```

Correct Answer:

**Code Segments**

| | firstChild | | HTMLDocument |
|---|---|---|---|

| | value | window | |

**Answer Area**

```
function getUsername() {
    var username = document . forms .credentials.username. innerHTML ;
    alert('Welcome, ' + username);
}
```

References: https://www.w3schools.com/jsref/coll_doc_forms.asp

**QUESTION 3**

DRAG DROP

A JavaScript array is initialized as follows:

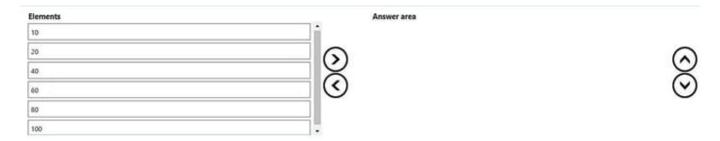```
var array = [20, 40, 60, 80];
```

You write the following code to manipulate the array:

```
array.shift();
array.pop();
array.push(10);
array.unshift(100);
```
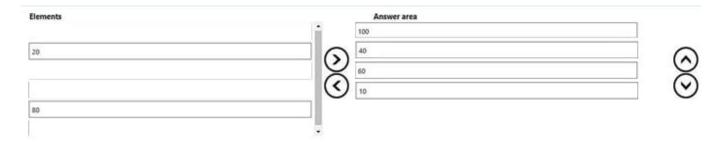
You need to determine the contents of the array.

Which four elements does the array contain in sequence? To answer, move the appropriate elements from the list of elements to the answer area and arrange them in the correct order.

Select and Place:

| Elements | Answer area |
|----------|-------------|
| 10 | |
| 20 | |
| 40 | |
| 60 | |
| 80 | |
| 100 | |

Correct Answer:

| Elements | Answer area |
|----------|-------------|
| | 100 |
| 20 | 40 |
| | 60 |
| | 10 |
| 80 | |

References: https://www.bennadel.com/blog/1796-javascript-array-methods-unshift-shift-push-and-pop.htm

**QUESTION 4**

HOTSPOT

You are designing a web page that contains a blue button. When the button is pressed, it should call a function that displays the message elcome When the cursor hovers over the button, the button should turn red. When the cursor

leaves the button, the button should revert back to its original color of blue.

You want to complete the markup using the appropriate HTML events.

How should you complete the markup? To answer, select the appropriate event in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

```
<!DOCTYPE html>
<html>
<head>
    <script>

        function showRed()

        {
            var changer = document.getElementById("changer");
            changer.style.backgroundColor = "red";
        }

        function showBlue()

        {
            var changer = document.getElementById("changer");

        }

        function notify()

        {
            alert("Welcome!");
        }
    </script>
</head>
<body>

        <input id="changer" type="button"
```

| onchange |
|---|
| onmouseover |
| onmouseout |
| onclick |

="notify();"

| onmouseover |
|---|
| onmousedown |
| onmouseout |
| onclick |

="showRed();"

| onmouseover |
|---|
| onmousedown |
| onmouseout |
| onkeydown |

="showBlue();" value="Click Me" style="background-color:blue; color:white;"/>

```
</body>
</html>
```

Correct Answer:

## Answer Area

```
<!DOCTYPE html>
<html>
<head>
    <script>

        function showRed()

        {
            var changer = document.getElementById("changer");
            changer.style.backgroundColor = "red";
        }


        function showBlue()

        {
            var changer = document.getElementById("changer");


        }


        function notify()

        {
            alert("Welcome!");
        }
    </script>
</head>
<body>
```

```
<input id="changer" type="button"  [ onclick ▼ ] ="notify();"  [ onmouseover ▼ ] ="showRed();"
                                      onchange                     onmouseover
                                      onmouseover                  onmousedown
                                      onmouseout                   onmouseout
                                      onclick                      onclick
```

```
    [ onmouseout ▼ ] ="showBlue();" value="Click Me" style="background-color:blue; color:white;"/>
      onmouseover
      onmousedown
      onmouseout
      onkeydown
```

```
</body>
</html>
```

References: https://www.w3schools.com/jsref/dom_obj_event.asp

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**QUESTION 5**
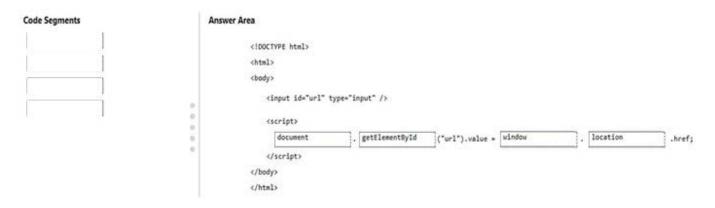
DRAG DROP You are creating a web page with a script. The script will insert the window\'s location inside the page\'s input element. How should you complete the code? To answer, drag the appropriate code segment to the correct locations. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to

view content.

Select and Place:

**Code Segments**

```
window
location
document
getElementById
```

**Answer Area**

```
<!DOCTYPE html>
<html>
<body>
    <input id="url" type="input" />
    <script>
        [_____] . [_____] ("url").value = [_____] . [_____] .href;
    </script>
</body>
</html>
```

Correct Answer:

**Code Segments**

**Answer Area**

```
<!DOCTYPE html>
<html>
<body>
    <input id="url" type="input" />
    <script>
        document . getElementById ("url").value = window . location .href;
    </script>
</body>
</html>
```

References: https://www.w3schools.com/js/js_window_location.asp

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**QUESTION 6**

DRAG DROP

You are creating a web page that tests a user\\'s ability to accurately type text. The validation should be case-insensitive.

How should you complete the code? To answer, drag appropriate functions to the correct locations. Each function may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

Select and Place:

## Code Segments

```
value
```

```
innerHTML
```

```
toLowerCase()
```

## Answer Area

```
<!DOCTYPE html>
<html>
<head>
    <script>
        function validate() {
            var input = document.getElementById("tester"). [          ] ;
            var text = document.getElementById("userText"). [          ] ;
            if(input. [          ] == text. [          ] )
            {
                alert("Success");
            }
        }
    </script>

</head>

<body>

    <p id="userText">When in the course of human events...</p>
    <input type="input" id="tester"; />
    <button onclick="validate()">Validate</button>
</body>

</html>
```

Correct Answer:

**Code Segments**

```
value
innerHTML
toLowerCase()
```

**Answer Area**

```
<!DOCTYPE html>
<html>
<head>
    <script>
        function validate() {
            var input = document.getElementById("tester"). value ;
            var text = document.getElementById("userText"). innerHTML ;
            if(input. value  == text. innerHTML  )
            {
                alert("Success");
            }
        }
    </script>

</head>

<body>

    <p id="userText">When in the course of human events...</p>
    <input type="input" id="tester"; />
    <button onclick="validate()">Validate</button>
</body>

</html>
```

References: https://www.w3schools.com/jsref/prop_text_value.asp

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**QUESTION 7**

DRAG DROP

You need to write a loop that will traverse the length of an array to find the value orange. If an array element value is null, the code should immediately go to the next element. When the value is found, the loop should exit.

How should you complete the code? To answer, drag appropriate keywords to the correct locations. Each keyword may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

Select and Place:

## Keywords

| for | break | continue | while |
|-----|-------|----------|-------|
| do  |       |          |       |

## Answer Area

```
<!DOCTYPE html>
<html>
<head>
<script>
    function doWork() {
        var list = ['apple', 'pear', null, 'orange', 'banana'];
        [          ] (i = 0; i < list.length; i++) {
            if(list[i] == null)
                [          ]
            if(list[i] == 'orange') {
                alert('found');

            [          ]
        }
        console.log(list[i]);

        }
    }
</script>
</head>
<body>
    <input type="button" value="test" onclick="doWork()" />
</body>
</html>
```

Correct Answer:

## Keywords

| | | | while |
|--|--|--|-------|
| do | | | |

## Answer Area

```
<!DOCTYPE html>
<html>
<head>
<script>
    function doWork() {
        var list = ['apple', 'pear', null, 'orange', 'banana'];
        for        (i = 0; i < list.length; i++) {
            if(list[i] == null)
                continue
            if(list[i] == 'orange') {
                alert('found');

            break
        }
        console.log(list[i]);

        }
    }
</script>
</head>
<body>
    <input type="button" value="test" onclick="doWork()" />
</body>
</html>
```

References: https://www.w3schools.com/js/js_arrays.asp https://www.w3schools.com/js/js_break.asp

**QUESTION 8**

HOTSPOT

You are using JavaScript to create a function that calculates admission price.

The function must meet the following requirements: The function accepts the age of the customer as a parameter A customer who is less than 5 years old gets in free A customer who is 65 years old or older gets in free A customer who is 5 years old to 17 years old, pays $10 USD All other customers pay $20 USD

How should you complete the code? To answer, select the appropriate code segments in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

```
function ticketPrice(age) {
      var price = 20;
```

| |
|---|
| if (age <= 5 && age > 65) { |
| if (age < 5 && age >= 65) { |
| if (age <= 5 || age > 65) { |
| if (age < 5 || age >= 65) { |

```
            price = 0;
      }
```

| |
|---|
| if (age >= 5 && age < 18) { |
| if (age > 5 && age <= 18) { |
| if (age >= 5 || age < 18) { |
| if (age > 5 || age <= 18) { |

```
            price = 10;
      }
      return price;
```

Correct Answer:

## Answer Area

```
function ticketPrice(age) {
    var price = 20;
```

| |
|---|
| if (age <= 5 && age > 65) { |
| if (age < 5 && age >= 65) { |
| if (age <= 5 || age > 65) { |
| if (age < 5 || age >= 65) { |

```
        price = 0;
    }
```

| |
|---|
| if (age >= 5 && age < 18) { |
| if (age > 5 && age <= 18) { |
| if (age >= 5 || age < 18) { |
| if (age > 5 || age <= 18) { |

```
        price = 10;
    }
    return price;
```

References: https://www.w3schools.com/jsref/jsref_operators.asp

---

**QUESTION 9**

HOTSPOT

You work as a JavaScript developer for Adventure Works. You are writing a simple script that performs the following actions: Declares and initializes an array Fills the array with 10 random integers Adds every other number starting with the first element

How should you complete the code? To answer, select the appropriate code segments in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

```
var numbers = [ ▼ ]
                  0
                  {}
                  []
                  --

for (var i = 0; i < 10; i++) {
    numbers. [ ▼ ] (Math.round(Math.abs(Math.random() * 10)));
             pop
}            push
var sum = 0; sort
             splice

for (var j = 0; j < 10; j = [ ▼ ] ) {
                             j++
                             j+1
                             j+2
                             j--

    sum += [ ▼ ] ;
           sum[j]
}          numbers[j]
           numbers(j)
           array[j]

console.log(sum);
```

Correct Answer:

## Answer Area

```
var numbers = [▼]
              | 0  |
              | 0  |
              | [] |  ← (highlighted)
              | .. |

for (var i = 0; i < 10; i++) {
    numbers.[▼] (Math.round(Math.abs(Math.random() * 10)));
}            | pop    |
            | push   |  ← (highlighted)
var sum = 0; | sort   |
            | splice |

for (var j = 0; j < 10; j = [▼]) {
                           | j++ |  ← (highlighted)
                           | j+1 |
                           | j+2 |
                           | j-- |

    sum += [▼] :
}          | sum[j]     |
          | numbers[j]  |
          | numbers(j)  |
          | array[j]    |  ← (highlighted)

console.log(sum);
```

References: https://www.w3schools.com/jsref/jsref_push.asp https://www.w3schools.com/js/js_arrays.asp
https://stackoverflow.com/questions/9813573/how-to-perform-a-sum-of-an-int-array

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**QUESTION 10**

HOTSPOT

You are designing a web page that contains a list of animals. The web page includes a script that outputs animals from a list.

You create the following HTML to test the script:

```
<p>Animals</p>
<ul>
    <li>Dog</li>
    <li><b>Cat</b></li>
    <li>Lion</li>
</ul>
<p>Click the button to display the animals.</p>
<button onclick="showList()">Show List</button>
<div id="list"></div>
```
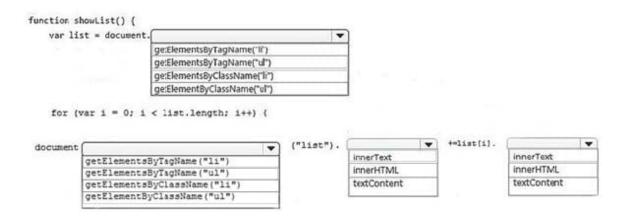
You need to create a function that will display the list of animals, including any formatting, in the div element. How should you complete the code? To answer, select the appropriate code segments in the answer area. NOTE: Each correct selection is worth one point.
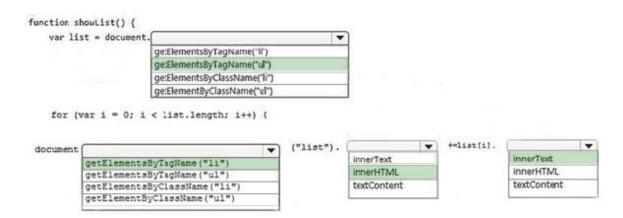
Hot Area:

**Answer Area**

```
function showList() {
    var list = document.[                    ▼]
                         ge:ElementsByTagName("li")
                         ge:ElementsByTagName("ul")
                         ge:ElementsByClassName("li")
                         ge:ElementByClassName("ul")

    for (var i = 0; i < list.length; i++) {

    document [                        ▼]  ("list").  [          ▼]  +=list[i].  [          ▼]
             getElementsByTagName ("li")             innerText               innerText
             getElementsByTagName ("ul")             innerHTML               innerHTML
             getElementsByClassName ("li")           textContent             textContent
             getElementByClassName ("ul")
```

Correct Answer:

**Answer Area**

```
function showList() {
    var list = document.[                    ▼]
                         ge:ElementsByTagName("li")
                         ge:ElementsByTagName("ul")  ◄ selected
                         ge:ElementsByClassName("li")
                         ge:ElementByClassName("ul")

    for (var i = 0; i < list.length; i++) {

    document [                        ▼]  ("list").  [          ▼]  +=list[i].  [          ▼]
             getElementsByTagName ("li")  ◄ selected  innerText               innerText  ◄ selected
             getElementsByTagName ("ul")             innerHTML  ◄ selected     innerHTML
             getElementsByClassName ("li")           textContent             textContent
             getElementByClassName ("ul")
```

References: https://www.w3schools.com/jsref/met_element_getelementsbytagname.asp

---

**QUESTION 11**

HOTSPOT

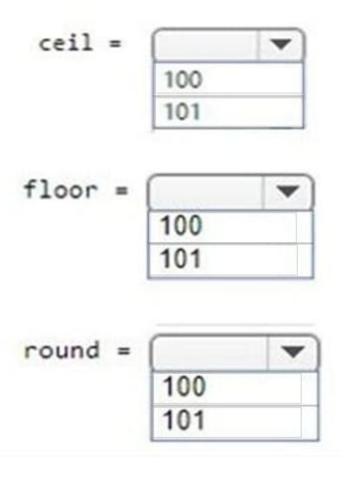You are planning to use the Math object in a JavaScript application. You write the following code to evaluate various Math functions:
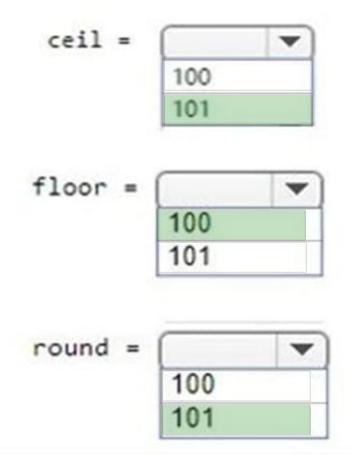
```javascript
var ceil = Math.ceil(100.5);
var floor = Math.floor(100.5);
var round = Math.round(100.5);
```

What are the final values for the three variables? To answer, select the appropriate values in the answer area. NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

ceil =

| |
|---|
| 100 |
| 101 |

floor =

| |
|---|
| 100 |
| 101 |

round =

| |
|---|
| 100 |
| 101 |

Correct Answer:

## Answer Area

ceil =

| | |
|---|---|
| 100 | |
| 101 | |

floor =

| | |
|---|---|
| 100 | |
| 101 | |

round =

| | |
|---|---|
| 100 | |
| 101 | |

References: https://www.w3schools.com/js/js_math.asp

**QUESTION 12**

HOTSPOT

You evaluate the following code:

```javascript
function change(student, course)
{
    student = "JavaScript Student";
    course.name = "JavaScript";
    course.grade = 100;
}

var sampleCourse = { "name": "HTML", "grade": 90 };
var sampleStudent = "HTML Student";

change(sampleStudent, sampleCourse);
console.log(sampleStudent, sampleCourse.name, sampleCourse.grade);
```
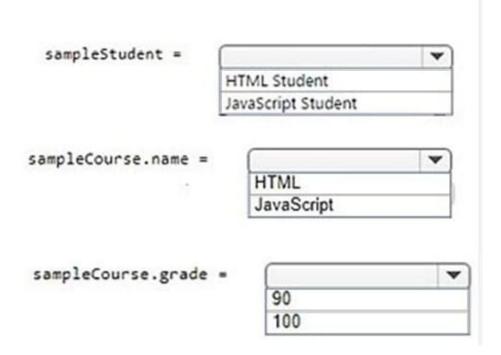
You need to determine the values of sampleStudent, sampleCourse.name, and sampleCourse.grade that are output by console.log(). What are the final values for the three variables? To answer, select the appropriate values in the answer area.

Hot Area:

## Answer Area

sampleStudent =

| HTML Student |
|---|
| JavaScript Student |

sampleCourse.name =

| HTML |
|---|
| JavaScript |

sampleCourse.grade =

| 90 |
|---|
| 100 |

Correct Answer:

## Answer Area

sampleStudent =

| HTML Student |
| JavaScript Student |

sampleCourse.name =

| HTML |
| JavaScript |

sampleCourse.grade =

| 90 |
| 100 |

References: https://www.w3schools.com/js/js_output.asp