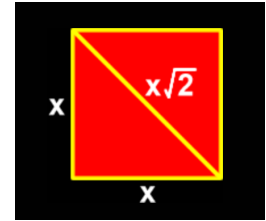**CIS 111 Midterm.01 19W. 150 pts. 30 questions @ 5 pts. each. 1 extra credit.**
Mark A for TRUE and B for FALSE

1. Which symbol is not valid in JavaScript identifiers?

     a) $ b) _   c) 7   d) -

2. T F   To find the length of the diagonal of a square, multiply the length of one side by the square root of 2:   `diag = x * √2`

This function correctly calculates the diagonal of a square:

```
let diagOfSquare = function(x){
   let d = x * Math.sqrt(2);
   return d;
};
```

3. T F Suppose a web page has a single `h2` element, and the content in the `h2` is currently, `Avast!` After this code is executed, what will the content of the `h2` be?

   a) Ya lubber! Avast!   b) Avast! Ya lubber!   c) Avast!   d) Ya lubber!

```
let content = document.querySelector("h2").innerHTML;
content = `${content} Ya lubber! `;
document.querySelector("h2").innerHTML = content;
```

4. What does the following print on the console?

a) result = 1 2 3   b) 1 2 3 = result   c) result = 1 2 3 4   d) result = result

```
let n = 1, result = "";
while (n <= 3) {
   result = result + n + " ";
   n = n + 1;
}
console.log(`result = ${result}`);
```

5. T F Both function definitions have no syntax errors, and compute the same value.

`let square = function (n) {`
`   return Math.pow(n, 2);`
`}`
	`function square (n) {`
	`    return Math.pow(n, 2);`
	`}`

6. What does the following print on the console?   a) 0   b) 1   c) 2   d) 3

```
let s = "A, B, C";
let arr = s.split(", ");
console.log(arr.length);
```

7. T F   The following prints   3 3 on the console.

```
let m = 1, n = 2;
m = m + n;
n = m;
console.log(m + " " + n);
```

8. T F This statement creates a variable, `fname`, that is assigned the value entered by the user.

```
let fname = alert("Enter your first name");
```

9. What value is printed on the console?   a) "Small"   b) "Medium"   c) "Large"   d) SML(32)

```
function SML(size){
   if (size < 10)
      return "Small";
   else if (size < 100)
      return "Medium" ;
   else
      return "Large";
}

console.log(SML(32));
```

10. T F   The following prints Eggs, Eggs, Spam and Eggs!

```
let brekkies = ["Eggs", "Spam"];
console.log(`${brekkies[1]}, ${brekkies[1]}, ${brekkies[0]}, and ${brekkies[1]}!`);
```

11. T F This function returns true when n is an odd number.

```
let mystery = function(n){
   if(n % 2 != 0){
      return true;
   }
   else{
      return false;
   }
}
```

12. T F The following does not cause a syntax error.

```
let function isCelery(veggie){
   return (veggie === "carat");
}
```

13. T F   The following displays 42 if the user enters 2 at the prompt.

```
let n = prompt("enter a number");
console.log(4 + n);
```

14. T F   Suppose a function named SOPD accepts an integer n and returns the Sum Of the Proper Divisors of n. The following example would display 6 on the console.

```
console.log(SOPD(6));
```

15. What is printed on the console?   a) 3   b) 12   c) 12.3   d) k / 10

```
let k = 123;
console.log(Math.floor(k / 10));
```

16. What value is printed on the console?   a) 0   b) 1   c) 2   d) 3   ) -1

```
let digits = "0123456789";
console.log(digits.indexOf(3));
```

17. T F   The following displays No B! :) on the console.

```
let toBorNotToB = function(grade) {
      return (grade >= 90)? "No B! :)" : "B :(";
}

console.log(toBorNotToB(93));
```

18. T F `null` is one of JavaScript's basic types.

19. T F The following prints `Repetition  Repetition  Repetition  Repetition` on the console.

```
let laws = "";
for(let i = 1; i <= 3){
    laws = laws + " Repetition ";
 }
console.log(laws);
```

20. T F The following example prints `true` on the console.

```
let rokyIsWired = true;
let rokyDownTime = true;
let isRokyCrashed = (!rokyIsWired || rokyDownTime);
console.log(isRokyCrashed);
```

21. What is the correct syntax for connecting a web page to an external file, `myScript.js`, which is located in the same folder as the .html file that contains this `script` element?

```
a. <script src="js/myScript.js"></script>
b. <script src="myScript.js"></script>
c. <script src="../myScript.js"></script>
d. <script href="myScript.js"></script>
```

22. Which symbol(s) do you use for a JavaScript comment?

```
   a) ;          b) { }        d) ( )       d) <!-- -->           e) //
```

23. Select the `for` loop that does the same thing as the `while`.

```
let j = 0, ans = "";
while( j < 3 ){
    ans = ans + j + " ";
    j++ ;
};
console.log(ans);
```

A) `let ans = "";`
`   for ( let j = 1; j < 3; j++ ){`
`      ans = ans + j + " ";`
`   }`
`   console.log(ans);`
	B) `let ans = "";`
	`   for ( let j = 1; j <= 3; j++ ){`
	`      ans = ans + j + " ";`
	`   }`
	`   console.log(ans);`

C) `let ans = "";`
`   for ( let j = 0; j < 4; j++ ){`
`      ans = ans + j + " ";`
`   }`
`   console.log(ans);`
	D) `let ans = "";`
	`   for ( let j = 0; j <= 3; j++ ){`
	`      ans = ans + j + " ";`
	`   }`
	`   console.log(ans);`

24. What does this code print on the console?   a) `true`   b) `false`

```
let notEqual = function(i, j){
    return (i != j)
}

console.log(notEqual(2, 3))
```

25. T F   If the the following code is executed today, `true` will be printed on the console.

Day (of the week)	getDay()	0-6	0 = Sunday

```
function isWeekend(d) {
  if ((d == 0) || (d == 6))
    return true;
  else
    return false;
}

let day = new Date();
let dayOfWeek = day.getDay();
console.log(isWeekend(dayOfWeek));
```

26. T F   The function correctly returns the total number of cents represented by the number of pennies, nickels, dimes, quarters, and half dollars.

```
function coinTotal(p, n, d, q, hd) {
  return p + 5 * n + 10 * d + 25 * q + 50 * hd;
}
```

27. T F The following prints the two lines of output shown on the left.

Argus
Filch
	`let txt1 = "Argus\n", txt2 = "Filch";`
	`let txt3 = txt1 + " " + txt2;`
	`console.log(txt3);`

28. T F   `fastForward` returns a date one second in the future.

```
let fastForward = function(dateStr) {
  let now = new Date(dateStr);
  let offset = 1000;
  now.setTime(now.getTime() + offset);
  return now;
};
```

29. T F A `scalene` triangle has at least two sides the same length.

30. What value is printed on the console when the user enters 17?

    a) "Good morning"   b) "Good day"   c) "Good morning"   d) ""

```
let hour = prompt("enter the hour"), greeting = "";
if (hour < 10) {
  greeting = "Good morning";
} else if (hour < 20) {
  greeting = "Good day";
} else {
  greeting = "Good evening";
}

console.log(greeting);
```

31. T F This function correctly recognizes century years.

```
function isCentury(y) {
  if (y % 100 == 0) {
    return true;
  } else {
    return false;
  }
}
```