

## Part A - HTML, CSS & JS, SQL

1. Read the following HTML code and answer the questions.

```
<div class="wrapper">
  <h1 id="header">Dynamic Yield</h1>
  <p id="paragraph"> Designed from the very beginning to be open
and flexible, Dynamic Yield combines the strength of a
    unified repository for data with the tools to activate
personalized interactions across web, apps, and email. A true
    end-to-end platform, its emergence in the market has replaced
the fragmented experiences of siloed systems with a
    cohesive and relevant customer journey.</p>
  
  
</div>
```

A. write the CSS selectors for the following :

- h1
- p
- div
- 1st img

B. Add the following CSS:

- i. Color blue to the h1 and align it to the middle of the page.
- ii. A red border to p.
- iii. Make the second image invisible

2. Assuming 'a' is a number:

```
while (a != 0) {
  a = a - 2;
}
console.log("done");
```

- What do you think about the while loop?
- If there is any problem, how can you fix it?

3. Read the following code

```
text = "Blah blah blah blah blah blah Omri \
blah blah blah Omri blah blah Omri blah blah \
blah blah blah blah blah Omri";
var myName = "Omri";
var hits = [];
// Look for "O" in the text
for (var i = 0; i < text.length; i++) {
  if (text[i] === "O") {
    // If we find it, add characters up to
    // the length of my name to the array
    for (var j = i; j < (myName.length + i); j++) {
      hits.push(text[j]);
    }
  }
}
if (hits.length === 0) {
  console.log("Your name wasn't found!");
} else {
  console.log(hits);
}
```

- a. Write the code's purpose. What is the output?
- b. When replacing the original text with the following:

```
text = "Blah blah blah blah blah blah Ok\
blah blah blah Omri blah blah Omri blah blah \
blah blah blah blah blah O";
```

Will the output be changed by the change in the text?

- If no please write why
- If yes please provide a fix so it will work as in the original version

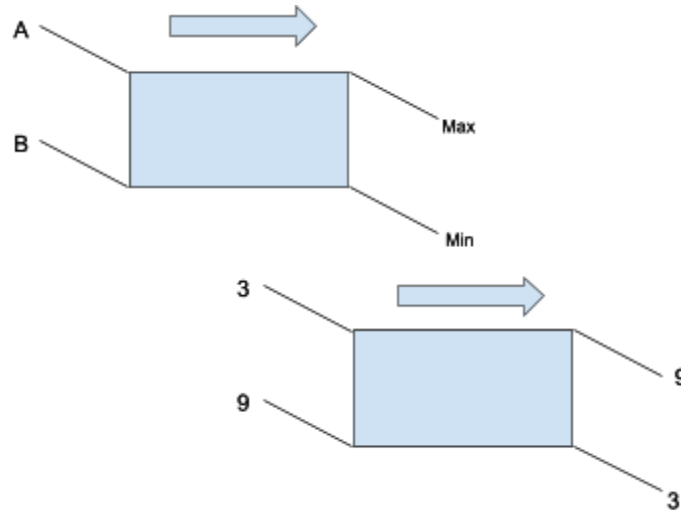
4. What would this SQL query return?

```
SELECT * FROM admin_users
WHERE first_name LIKE "m%d"
```

## Part B - Logic

### 5. "Sort Device" Question

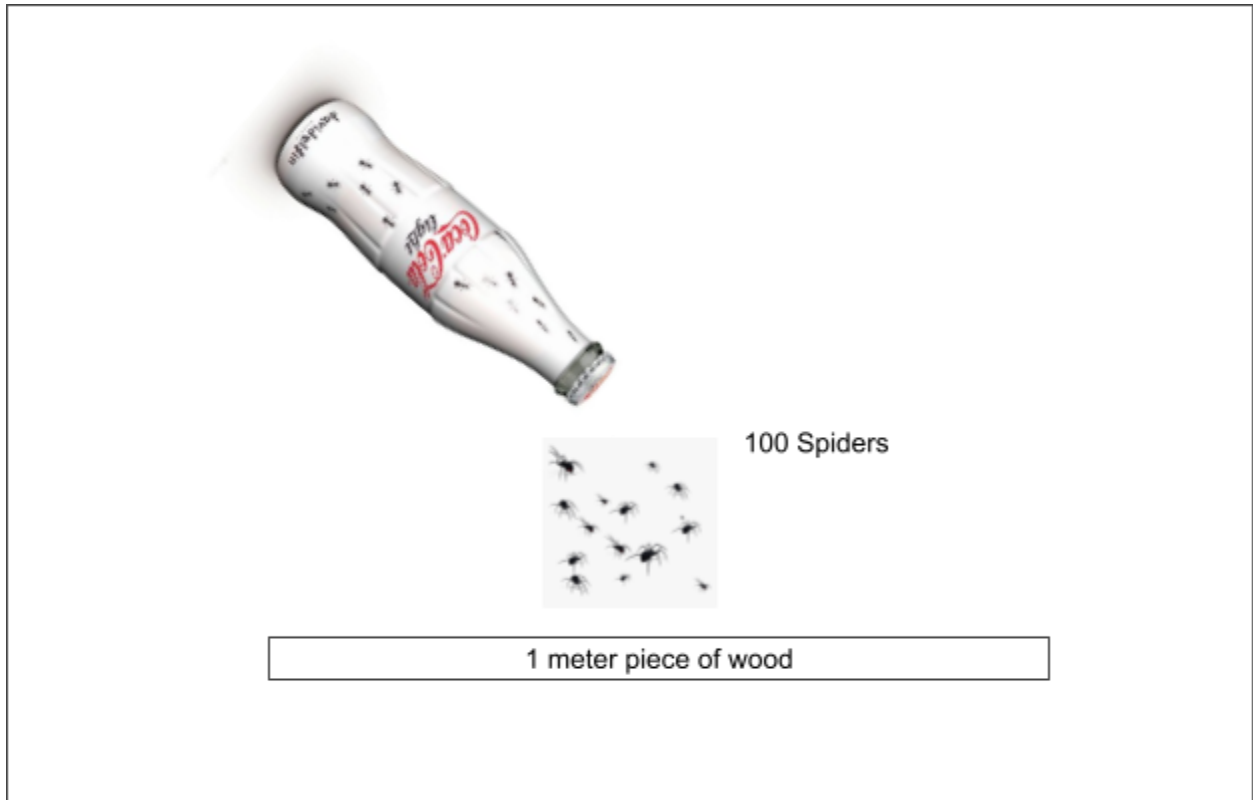
1. Sort Device is a box that is capable of determining which of two numbers is the higher (Max) and which is lower (Min).



2. What is the **MINIMUM** amount of devices needed to **sort 4 different numbers** (any A, B, C, D). For example, if the request was to sort only 2 numbers, 1 box will do the job.

### **6. Spiders Question**

1. You have a one meter piece of wood and a bottle with 100 spiders.
2. Every spider crosses one meter per second.



3. When a spider arrives at the end of the wood it falls off.

#### **Question:**

How fast the stick will be clean out of spiders, if:

- A spider can walk only right or left.
- When two spiders meet, every spider changes direction.

### Part D- English

7. Below is an Email correspondence between a tour guide (you) and a tourist, help him and make sure he is having some good time. Please fill each bubble with at least 30 words.



Hi Tour guide,

My family and I are planning to visit Israel soon and we would love to hear some recommendations of the best places to visit in Israel. Will you be able to assist and to share with us some of your experience?

Best regards,  
Ben

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Hi again,

Wow, sounds amazing! Thank you so much for the helpful information. I would also love to hear more about the Israeli people and about the prevailing atmosphere. What should I expect during my visit?

Best,  
Ben

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Hi,

One last question, did you happen to travel outside of Israel? (we are thinking about visiting one more destination before heading back home). Can you tell me about it? How was your experience? I'm always delighted to hear about new and exciting places.

Best,  
Ben

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2 weeks later



Hi,

We have just arrived home - Israel was amazing and we already miss it - your suggestions were extremely beneficial.

P.S - on our way to the airport, Nisim, the taxi driver you had recommended, charged us with 300 NIS, which turns out to be a doubled price.

Best,  
Ben

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