

Computer Science E-I

Lecture 9: Programming

Final Project

<http://cse1.net/store>

HTML

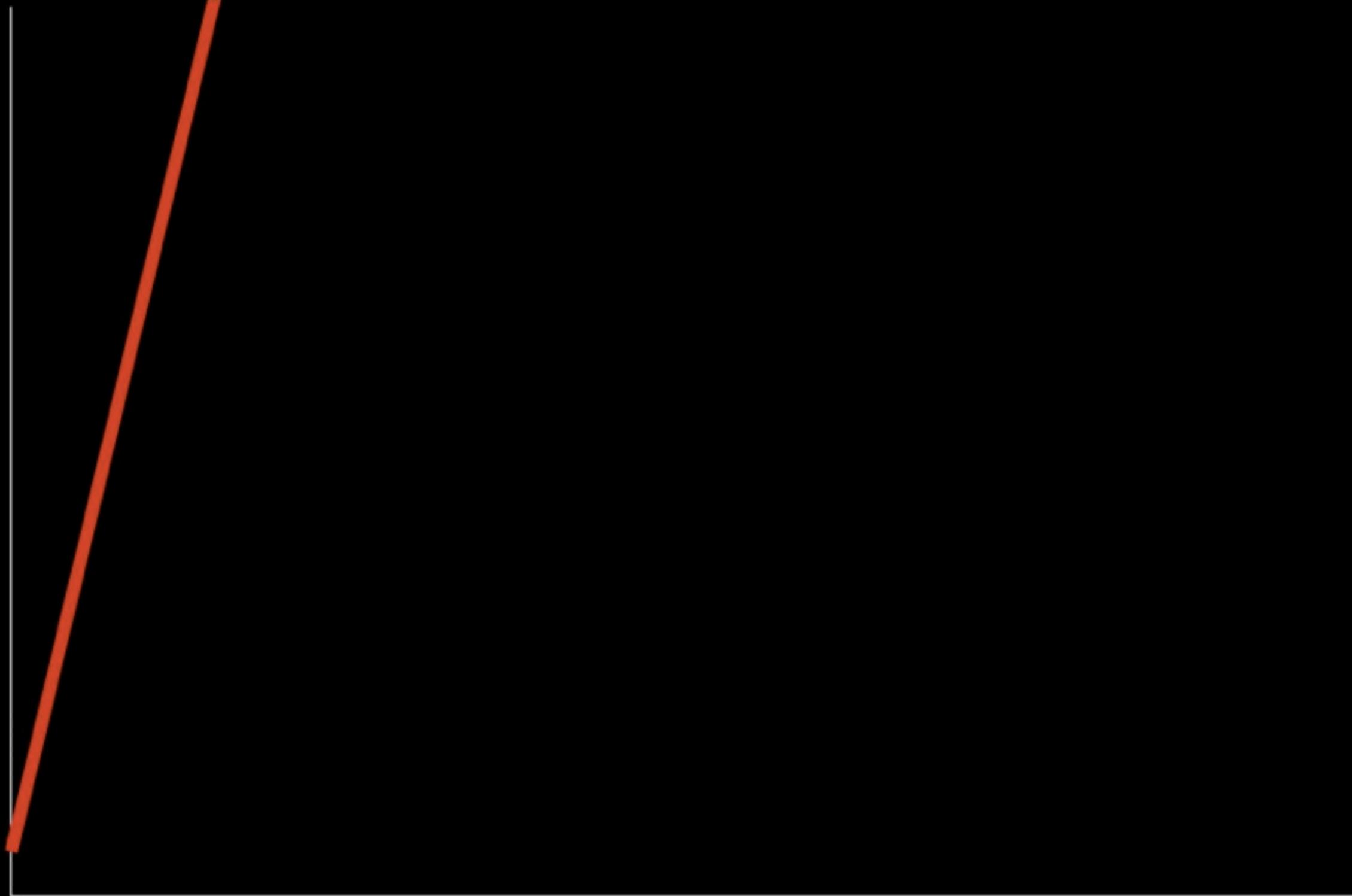
Algorithms

What chair is everyone sitting in?

1. Ask the person to your left where he/she is sitting
2. If there is no one to your left, say “one”
3. Add one to the answer of the person to your left, and say it out loud

How many people are here?

time to solve



n

size of problem

time to solve

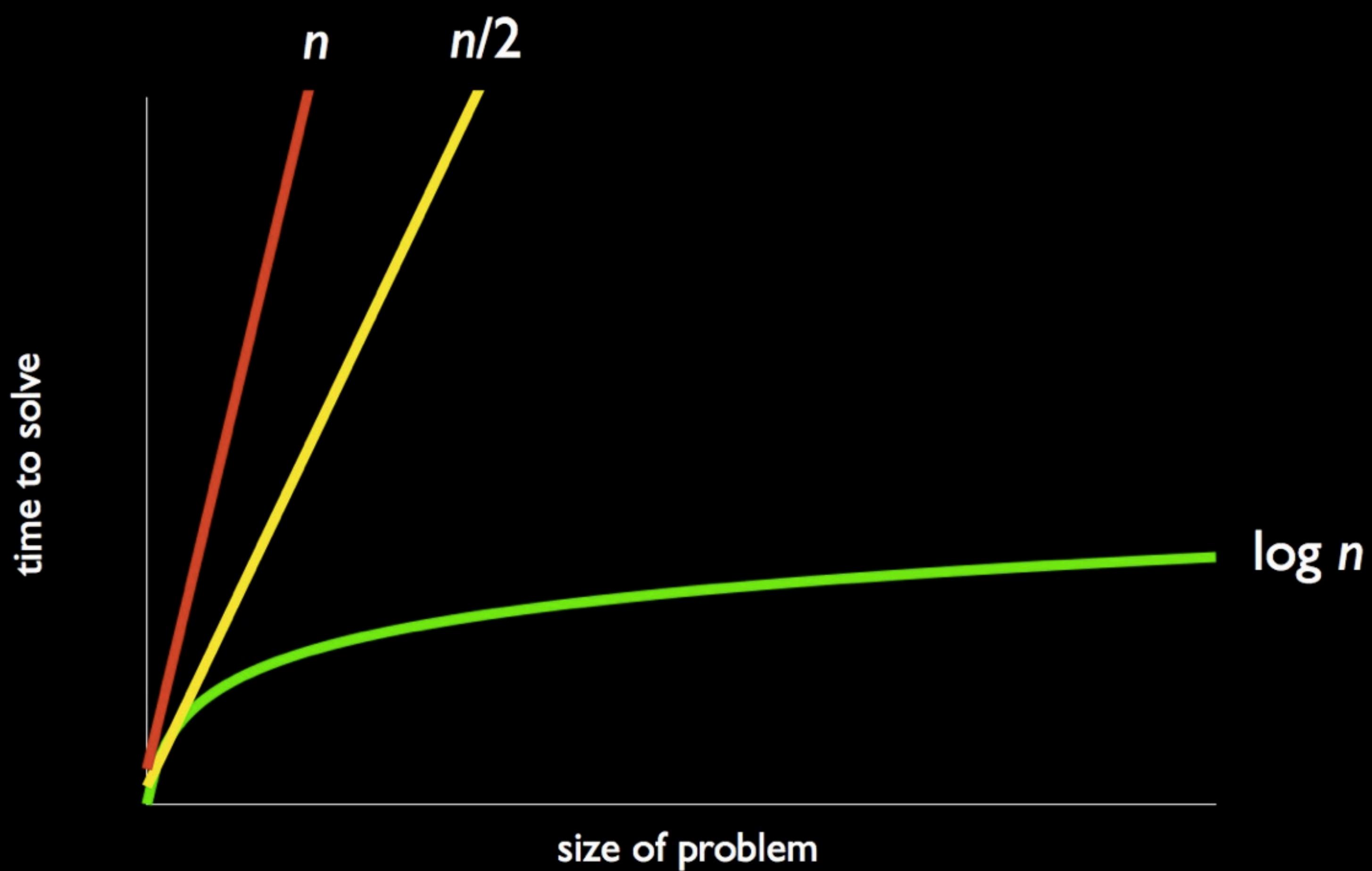
n

$n/2$

size of problem



1. Stand up. You are number 1.
2. Pair off with someone standing. Add your numbers together. The sum is your new number.
3. One person sits. The other goes to step 2.



How do you make a peanut butter
and jelly sandwich?

Scratch

Sprites

Stage

Scripts

when  clicked

say O hai, world!

say O hai, world!

Statements

`say` `0 hai, world!`

wait 1 secs

play sound meow ▼

Boolean expressions

touching

mouse-pointer

?



mouse down?

Combining expressions





Conditions







if

else

if

else

Loops



repeat 10



Variables

set

socks_on_feet ▼

to

0

Arrays

add thing to inventory ▼

Threads

Events

Mario

JavaScript

<script>

say O hai, world!

```
alert('O hai, world!');
```



```
var socks_on_feet = 0;
```



```
if (socks_on_feet === 2) {  
    alert("Done!");  
}  
else {  
    alert("Keep going!");  
}
```

repeat 10



```
var counter = 0;
while (counter < 10) {
    alert(counter);
    counter = counter + 1;
}
```

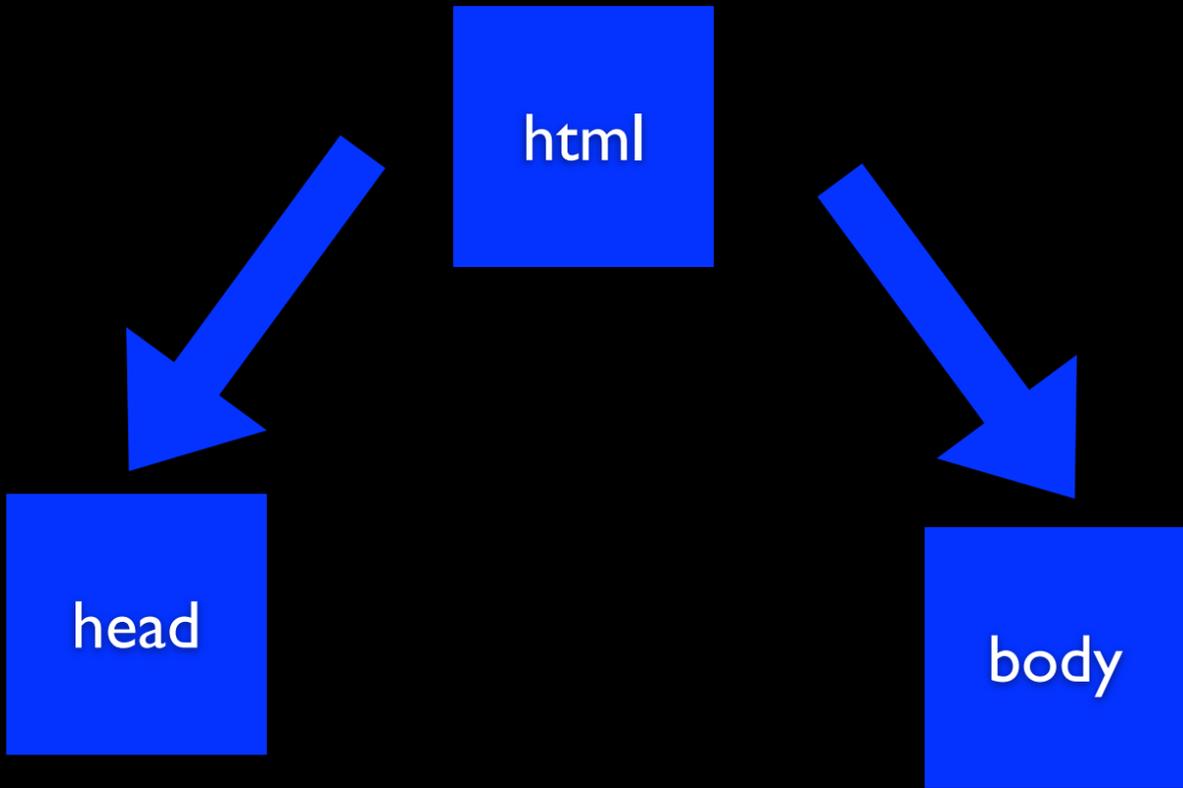
```
var counter = 0;
while (counter < 10) {
    alert(counter);
    counter++;
}
```

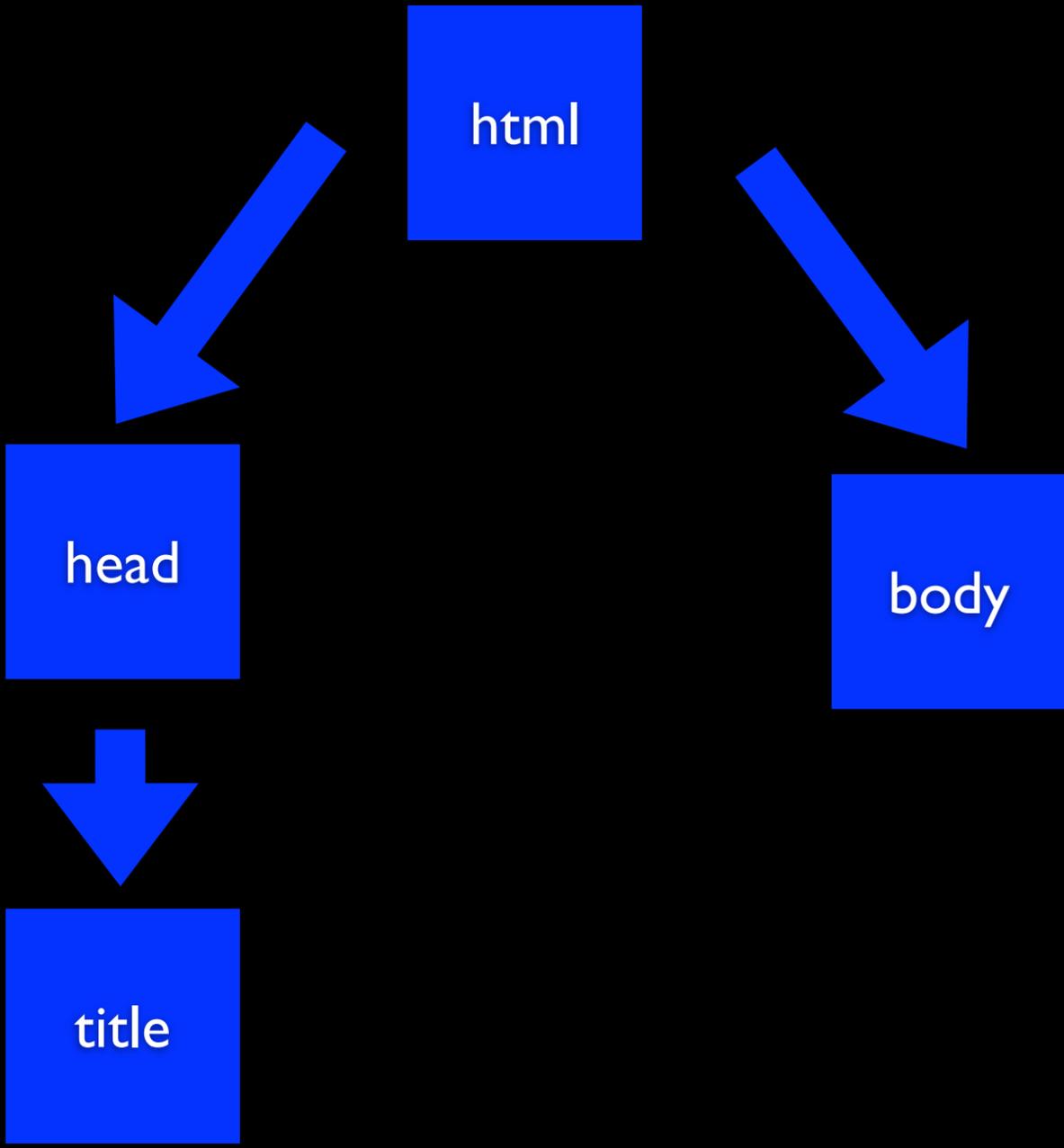
```
for (var i = 0; i < 10; i++) {  
    alert(i);  
}
```

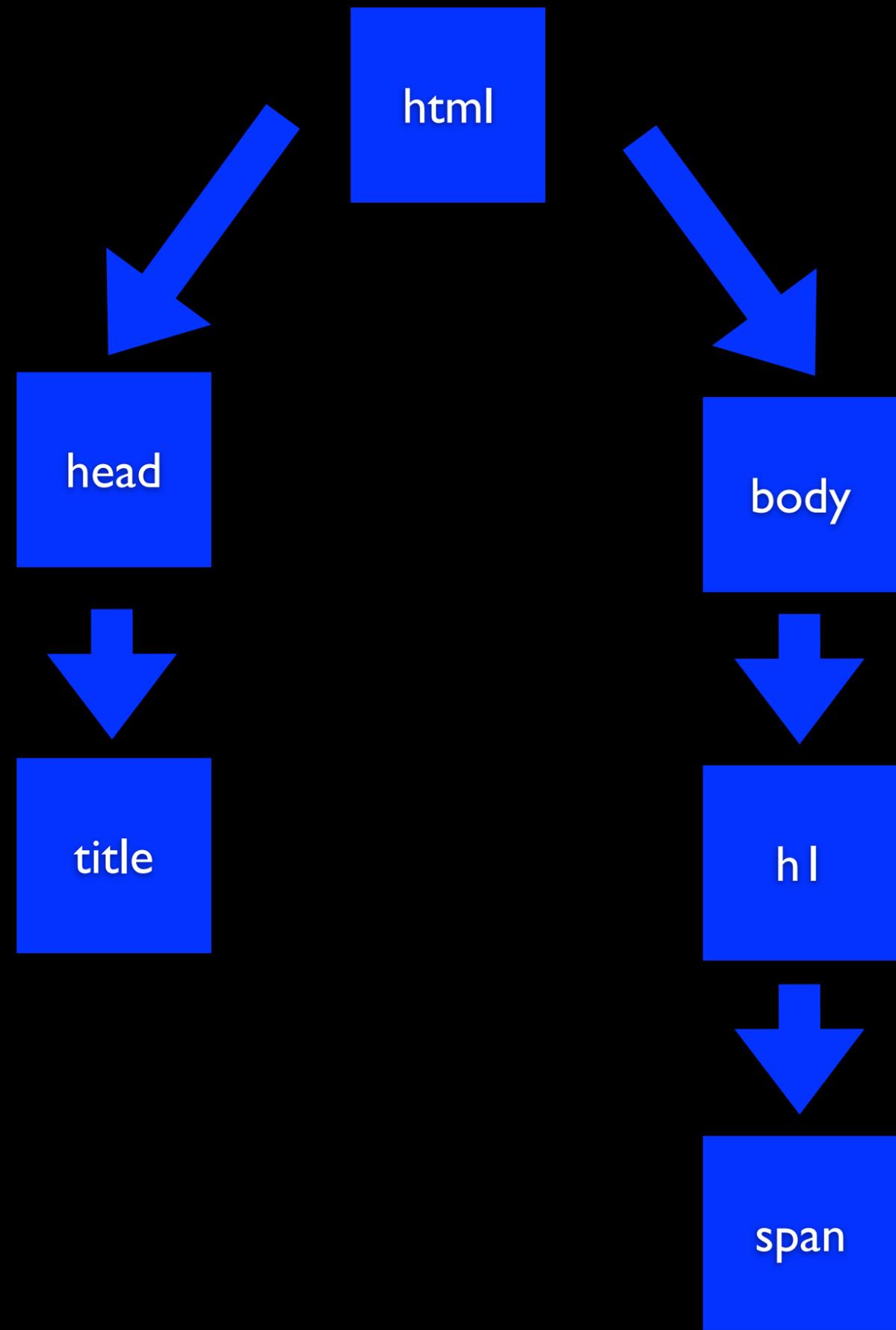
DOM

```
<html>
  <head>
    <title>Web Page</title>
  </head>
  <body>
    <h1><span>A web page!</span></h1>
  </body>
</html>
```

html







document.getElementById

document.querySelectorAll

Thanks!

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