



# Front-end development: Tricky Parts

## JavaScript – scope & hoisting

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The following exercise contains the following subjects:

- scope
- hoisting

### Instructions

Without running the code below, explain in your own words what the result of each block of code will be and why.

If there are any faulty outputs, please write on how we can fix them.

### Block 1

```
var x = 10;
console.log(x);
if (true) {
  var x = 20;
  console.log(x);
}
console.log(x);
```

## Block 2

```
var x = 10;
console.log(x);
if (true) {
  (function() {
    var x = 20;
    console.log(x);
  })();
}
console.log(x);
```

## Block 3

```
var x = 10;
console.log(x);
function test(){
  var x = 20;
  console.log(x);
  if (x > 10) {
    let x = 30;
    console.log(x);
  }
  console.log(x);
}
test();
console.log(x);
```

## Block 4

```
var x;  
x = 10;  
function test(){  
    var x;  
    if (x > 20) {  
        x = 50;  
    }  
    console.log(x);  
}  
test();
```

## Block 5

```
function test(){  
    var x, y;  
    if (false) {  
        x = 50;  
    }  
    console.log(x);  
    console.log(y);  
    y = 100;  
    console.log(y);  
}  
test();
```

## Block 6

```
function test(){
  foo();
  bar();
  // Function defined
  // using function declaration
  function foo(){
    console.log('foo');
  }
  // Function defined
  // using function expression
  var bar = function() {
    console.log('bar');
  }
}
test();
```