

Environment Diagram Examples – COMP110 – Lecture 10

```
import { print } from "intros";  
export let main = async () => {  
  let x: number;  
  x = 0;  
  let y: number;  
  y = x;  
  x++;  
  print("x:" + x + ", y:" + y);  
};  
main();
```

The Stack

The Heap



```
import { print } from "intros";  
export let main = async () => {  
  let x: number[];  
  x = [];  
  x[0] = 0;  
  let y: number[];  
  y = x;  
  x[0] = x[0] + 1;  
  print("x[0]:" + x[0]);  
  print("y[0]:" + y[0]);  
};  
main();
```

The Stack

The Heap



```
let x: number;

export let main = async () => {
  x = 0;
  f();
  print(x);
};

let f = (): void => {
  x = x + 1;
};

main();
```

The Stack



The Heap

```
import { print } from "intros";

export let main = async () => {
  let x: number;
  x = 0;
  f(x);
  print(x);
};

let f = (x: number): void => {
  x = x + 1;
};

main();
```

The Stack



The Heap