

Memory

A: undeclared 12

global: {

hello: undeclared

Code

main	code
	code

undeclared

Hello ✓

10

X

var hold = function ( )  
3 {  
    c.i.f ("you gup road")  
}

1) Mem	2) Kue
<p>hello: <del>understand</del></p> <p>f{</p> <p>...</p> <p>}</p>	

you guys rock;

Diagram illustrating memory layout and access:

- Grandpa (stick figure) → Grandpa's house (house icon) → Local memory (labeled "local memory")
- Local memory → Local CPU (labeled "local CPU")
- Local CPU → Local memory (labeled "local CPU")
- Local CPU → Local memory (labeled "local CPU")

Inner → Inner local memory  
Outer → Outer local memory  
Scope  
Global

```

1) function outer() {
2)   inner();
3)   function inner() {
4)     console.log(b);
5)   }
6)   var b = 10;
7)   outer();
8)   console.log(b);
9) }

```

Annotations in the image:

- A blue arrow on the left points from line 9 up to line 1.
- A green bracket on the right groups lines 3 through 5, with the label "function inner()".
- A green circle highlights the variable `b` in line 4.
- Red dots are placed at the end of lines 2, 3, 4, 6, 7, 8, and 9.
- Blue dots are placed at the end of lines 1, 5, and 9.

Scope chaining Console

1) Mem	2) Code
$\{x\}$ 	
$\{inner: f\{\dots\}\}$ $\{x\}$	
$\{outer: f\{\dots\}\}$ $\{b: \text{undefined}\}$	

1) inner  $\rightarrow$  f.c  
 ↳ local mem + outer.c env  
 2) outer()  $\rightarrow$  f.c  
 ↳ local mem + i.e. f.c env  
 3) f.c

→ f.c  $\rightarrow$  Local mem  
 → f.c