

```

function adder(base) {
  return function(no) {
    return base + no;
  }
}

```

```

var fiveAdder = adder(5);

```

```

fiveAdder(2);

```

Closure

base = 5

```

> tenAdder.prototype
< {constructor: f}
  arguments: null
  caller: null
  length: 1
  name: ""
  prototype: {constructor: f}
  [[FunctionLocation]]: VM336:3
  [[Prototype]]: f()
  [[Scopes]]: Scopes[2]
    0: Closure (adder) {base: 10}
    1: Global {0: Window, window: Window, self: Window, document: document, name: "", location: Location, ...}

```

```

> fiveAdder.prototype
< {constructor: f}
  arguments: null
  caller: null
  length: 1
  name: ""
  prototype: {constructor: f}
  [[FunctionLocation]]: VM336:3
  [[Prototype]]: f()
  [[Scopes]]: Scopes[2]
    0: Closure (adder) {base: 5}
    1: Global {0: Window, window: Window, self: Window, document: document, name: "", location: Location, ...}

```

```

function memoize(fn) {
  var cache = {};
  return function(args) {
    if(!cache[args]) {
      cache[args] = fn(args);
    }
    return cache[args];
  }
}

```

```

function fibonacci(no) {
  return (no == 0 || no == 1) ? 1 : fibonacci(no - 1) + fibonacci(no - 2);
}

```

```

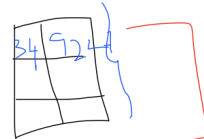
var memFib = memoize(fibonacci);

```

```

0: Closure (memoize)
  cache: {34: 9227465}
  fn: f fibonacci(no)

```



```

console.time("first");
console.log(memFib(34));
console.timeEnd("first");

```

```

console.time("second");
console.log(memFib(34));
console.timeEnd("second");

```