

LoBj1

- ▶ C1\$K<B9T7k2L\$ @\$ 1\$ G\$ OK~E @\$ G\$ O\$ J\$ \$! #
- ▶ I,\$:9M; !\$ rIU\$ 1\$k\$ 3\$ H! #
- ▶ :#2s\$N>19g! "substring() \$Hslice() \$NHf3S\$,M_ \$7\$ \$! #

%=%U%H&%'%"3+H/
Bh 3 2sL\<x6H

J?Ln>Hhf8E

Bh 2 2sL\I|=,2jBj

AQ2s\$Nl i=,LcB j\$N2 fEz

Bh 3 2s- 4X?t

4X2 t\$ND j\$AJJK l\$HBFS9=f\$7

2>0 z?t\$XS N\$eF~

2DJQD z?t\$ r\$B\$klX?t

JQ2 t\$N\$ 9\$ 3! <QW

JavaScript \$KS *\$1\$klX?t
\$NFQ'

%/m! <Q8\$c

L0Bj2

- ▶ C1\$K<B9T7k2L\$7\$+=q\$ \$\$F\$ \$\$J\$ \$\$b\$N\$,B?\$+\$C\$?!#I,\$:!"
0UL#\$b4^\$a\$?9M; !\$,M_\$7\$ \$! #
- ▶ 2. \$G\$O2 \$D\$NJQ?t\$NCM\$N8r49\$,4JC1\$K\$G\$-\$k\$3\$H\$r;X
E&\$7\$F\$ [\$7\$ \$! #

%=%U%H&%'%"3+H/
Bh 3 2sL\<x6H

J?Ln>Hhf8E

Bh 2 2sL\I|-,2jBj

AQ2s5NI4=,LcBj5N2fEz

Bh 3 2s- 4X?t

4X2t5NDj5AJK151BF59-F57

2>0z7t\$X5N5eF~

2DJQDz?t5r5H5k4X?t

JQ2t5N5953!<5W

JavaScript \$K5*\$515k4X?t
51FQ'

%/Amf<585c

LoBj3

%=%U%H%&%'"3+H/

Bh 3 2sL\<x6H

J?Ln >Hhf8E

Bh 2 2sL\I |-,2jBj

AQ2sNLi-,LoBj5N2fEz

Bh 3 2s- 4X?t

4X?t5NDj5AJK151Bf59-f57

2x0z7t5X5N5eF~

2DJQDz7t5r5B5k4X?t

JQ?t5N5953!<5W

JavaScript 5K5*515k4X?t
5NFQD'

%/5ml<585c

- ▶ %3%s%!=! <%k\$KI=< (\$ 5\$ 1\$?7 k2 L\$ r\$ 9\$ Y\$ F=q\$ /\$ 3\$ H
- ▶ :G8e\$Nundefined \$Oconsole.log() \$NL\$a\$ jCM\$ J\$N\$G
ITMW
- ▶ pop() \$Hpush() \$rAH\$_9g\$o\$;\$ 1\$P% 9% ?%C% /\$,MF0W\$K
9=@ .\$G\$-\$k! #
- ▶ shift() \$Hpush() \$rAH\$_9g\$o\$;\$ 1\$P%-e! <\$,MF0W\$K
9=@ .\$G\$-\$k! #
- ▶ slice() \$Hsplice() \$NOc\$ \$\$r=q\$ \$\$F\$ J\$ \$\$b\$N\$,B?
\$+\$C\$?! #

J?Ln >HHf8E

$$A \otimes S_N \mathbb{I} = L \otimes S_N \mathbb{I} \oplus E$$

JavaScript \$K\$*\$1\$k4X?t

\$NFCD'\$

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A 02 s\$Nl i=,LcB j\$N2 rE z (4)

%=U%H%&%'"%3+H/
Bh 3 2sL\<x6H

J?Ln >HHf8E

Bh 2 2sL\I |-,2jBj

A02 s\$Nl i=,LcB j\$N2 rEz

Bh 3 2s- 4X?t

4X2 t\$ND j\$AJJK l\$HBFS9-P67

2>0 z7t\$XS NBef~

2DJQD z?t\$ r\$B\$klX?t

JQ2 t\$N6 96 3! <6W

JavaScript \$KS *\$1\$klX?t
\$NFCD'

%/aml <68c

< !\$N< 0\$NI >2A7k2 L\$ r5 a\$a\$ J\$ 5\$ \$! #

"4"*"5"	20	J8; zNs\$M\VS G\$O*\$Nl i; ;\$,D j5A\$ 5 \$ l\$F\$ \$\$ J\$ \$\$N\$GN>J }\$H\$b?t\$KJQ 4 9\$ 5\$ l\$F7W; ;\$ 5\$ l\$k! #
"4"/"5"	0.8	>e\$HF 1MM

4JC1\$J4X?t\$NNc

%=%U%H%&%'"3+H/

Bh 3 2sL\<x6H

J?Ln>Hhf8E

Bh 2 2sL\I|=,2}Bj

AQ2s6NLi=,LcBj5N2rEz

Bh 3 2s- 4X?t

4X2t\$NDj5AJK!\$HFFS9-F67

2>Qz7t\$XSNEF~

2DJQDz?t\$z\$H\$klX?t

JQ?t\$N%9!<QW

JavaScript \$KS*\$5\$klX?t
\$NFQ'

%/m!<Q8%c

```
sum() $H$ $$ &4X?t$ rD j5A$ 7$F$ $$kNc
```

```
function sum(a,b) {
```

```
    var c = a + b;
```

```
    return c; // return a + b; !!$G$b$h$ $! #
```

```
}
```


4X?t\$NkB9Tnc

%=%U%H%&%'% "3+H/
Bh 3 2sL\<x6H

J?Ln >Hff8E

Bh 2 2sL\I |=,2}Bj

AQ2s5NLi=,LcBj5N2fEz

Bh 3 2s- 4X?t

4X2t\$NDj5AJK!\$HBF\$9-E\$7

2>0z7t\$X\$NBef~

2DJQDz?t\$z\$B\$kdX?t

JQ2t\$N%9%3!<W

JavaScript \$K\$*\$1\$kdX?t
\$NFQ'

%/amd<W8c

>sum(1,2)

3

>sum(1)

NaN

>sum(1,2,3)

3

4X?t\$NKB9TNc\$N2r@b

%=%U%H%&%'% "3+H/
Bh 3 2sL\<x6H

J?Ln >HHf8E

Bh 2 2sL\I |-,2JBj

AQ2s6NI i-,LcB j\$N2 zEz

Bh 3 2s- 4X?t

4X2t\$ND j\$AJK i\$Hf\$9-E\$7

2>0 z?t\$XS N\$eF~

2DJQD z?t\$ z\$H\$ k4X? t

JQ2 t\$N\$ 9% 3! <4W

JavaScript \$K\$ *\$ i\$ k4X? t
\$NfQ'

% /amd <48% c

- ▶ 0z?t\$K 1 \$H 2 \$rM?\$ (\$ l\$P4 |BTDL\$ j\$N7k2L\$,F@ \$ i\$ l\$k! #
- ▶ 0z?t\$K 1 \$@ \$ l\$rM?\$ (\$?> l9g! "% (% i! <\$,5/\$3\$ i\$:! "NaN
\$H\$ J\$k! # \$3\$ l\$O! "ITB-\$7\$F\$ \$\$k0z?t (\$3\$N> l9g\$K\$O b)
\$K\$Pundefined \$,EO\$5\$ l\$k\$?\$a\$G\$ "\$k! #1+undefined
\$N7k2L\$ONaN \$K\$ J\$k! #
- ▶ 0z?t\$ rB?\$ /EO\$7\$F\$b\$ (% i! <\$,H/@8\$7\$J\$ \$! #L5; k\$5\$ l\$k
\$@ \$ l\$G\$ "\$k! #

\$3\$ l\$ i\$N\$3\$H\$+\$i JavaScript \$N4X?t\$O% *%V%8%'%/%H; XB~\$G
;H\$ o\$ l\$k\$]% j%b! <%U% #% :% ` \$r%5%]! <%H\$7\$F\$ \$\$J\$ \$! #

4X?t\$N: FD j5A

%=%U%H%&%'% "3+H/

Bh 3 2sL\<x6H

J?Ln >Hhf8E

Bh 2 2sL\I |=,2jBj

AQ2 s6NL i=,LcB j5N2 rEz

Bh 3 2s- 4X?t

4X2 t\$ND j5AJK!\$Hf8S-ES7

2>0 z?t\$XS N3eF~

2DJQD z?t\$ r\$ H\$ k4X? t

JQ2 t\$N6 96 3! <4W

JavaScript \$KS *\$1\$ k4X? t
\$NFQD'

%/m! <48k c

F1\$ 84X?t\$ rD j5A\$ 7\$F\$b% (%i! <\$K\$J\$ i\$J\$ \$! #8 e\$N4X?t\$ND j5A
\$,M%@h\$5\$1\$k! #

```
function sum(a, b){  
    return a+b;  
}  
  
function sum(a, b, c){  
    return a+b+c;  
}
```

2>0 z?t\$X\$NB€~

%=%U%H%&%'% "3+H/

Bh 3 2sL\<x6H

J?Ln>HhfbE

Bh 2 2sL\I |-,2}Bj

AQ2s6NI i=,LcB j5N2 rEz

Bh 3 2s- 4X?t

4X2 t5ND j5AJ jK i5iB f5S- f57

2>0 z?t\$X\$NB€~

2DJQD z?t\$ r5 i5 k4X? t

JQ2 t5N6 9% 3! <4W

JavaScript \$K5 *\$ i5 k4X? t
\$NFQ'

% /amd <4 8% c

- ▶ 2>0 z?t\$KCM\$ rB€~\$ 7\$F\$b% (% i! <\$H\$O\$ J\$ i\$ J\$ \$! #
- ▶ 2>0 z?t\$NCM\$, %W% j%_%F% #% V\$ J\$ H\$ -\$H\$=\$ &\$G\$ J\$ \$\$H\$ -\$H\$G\$O8F\$S=P\$78 5\$K\$*\$ 1\$kJQ?t\$NCM\$,0 [\$J\$ k! #

8F\$ S=P\$ 7\$?4X?t\$NC f\$ G2 >0 z? t\$NCM\$ rJQ2=\$ 5\$;\$?\$ H\$ -\$NNc

```
function func1(a){  
  a = a*2;  
  return 0;  
}  
  
function func2(a){  
  a[0] *=2;  
  return 0;  
}
```

%=U%H%&%'%"3+H/
Bh 3 2sL\<x6H

J?Ln >Hf8E

Bh 2 2sL\I |-,2}Bj

AQ2 s6NL i=,LcB j5N2 zEz

Bh 3 2s- 4X?t

4XQ t5ND j5AJJK i5iBFS9-F67

2x0z? t\$XN6E~

2DJQD z? t\$ z5 B5 k4X? t

JQ2 t5N6 96 3! <4W

JavaScript \$K5 *\$ i5 k4X? t

\$NF CD'

%/m! <4 8k c

8F\$ S=P\$ 7\$?4 X? t\$NC f\$ G2 >0 z? t\$NCM\$ rJQ2=\$ 5\$;\$?\$ H\$ -\$NNc

%=%U%H%&%'% "3+H/
Bh 3 2sL\<x6H

J?Ln >Hf8E

Bh 2 2sL\I |-,2]Bj

AQ2 s6Nl i-,LcB j5N2 rEz

Bh 3 2s- 4X?t

4XQ t5ND j5AJ jK l5lBf5 9-r5 7

2-x0z? t\$X5Nef~

2DJQD z? t5 r5 l5 k4X? t

JQ2 t5N6 96 3! <4W

JavaScript \$K5 \$5 l5 k4X? t
\$NFCD'

%/amd <48hc

- ▶ func2() \$N2>0 z? t\$OG [Ns\$,A [D j\$ 7\$F\$ "\$k! # \$3\$N@hF,\$N CM\$ @ \$1 2 G\ \$5\$ l\$ k4 X? t\$G\$ "\$k
- ▶ \$3\$ l\$KG [Ns\$ rEO\$ 9\$H! "La\$ C\$F\$ -\$?\$H\$ -G [Ns\$N@hF,\$NCM \$,JQ2=\$ 7\$F\$ \$\$k
- ▶ %W%i%\$%_F%#%V7 ?0 J3 0\$G\$ Q2 >0 z? t\$NEO\$ 7J }\$,; >HEO\$ 7 \$G\$ "\$k

```
>a = [1,2,3];
```

```
[1, 2, 3]
```

```
>func2(a);
```

```
0
```

```
>a;
```

```
[2, 2, 3] //G [Ns$N@hF,$NCM$, 2 G\ $5$ l$F$ $$k
```

$$\frac{B_h}{3} \leq \frac{2\pi L}{\lambda} < \frac{x_6 H}{H}$$

0 z? t\$ N? t\$ r8 G j\$ 7\$ J\$ \$\$ h\$ &\$ K\$ 9\$ k\$?\$ a\$ K\$ O2 >0 z? t\$ KE 83 +1 i
i i i R\$ r\$ D\$ 1\$ k¹ ! #

J?Ln>HHf8E

```
function sumN(...args) {
  let S = 0;
  for(let i=0;i<args.length;i++) {
    S += args[i];
  }
  return S;
}
```

2DJ00z?t\$ r\$H\$k4X?t

JavaScript \$K\$ *\$1\$ k4X?e
\$NFC0'

- ▶ 1 9TL\\$G4X?t\$N2>0 z?targs \$KE83+1 i; ; R. . . \$r\$D\$1\$k! #
- ▶ args \$OG [Ns\$H\$J\$N\$G\$=\$NBq\$-\$5\$Oargs.length
- ▶ \$3\$1\$rMQ\$ \$\$FAnOB\$N%W%m%0%i% '\$, 2 9TL\\$+\$i5 9TL\\$K
5-=R

```

1$3$1$^$G$N JavaScript $G$O! "4X?t$N0 z?t$ rI=$ 9G [N$N$h$&$J0<-A$ r
; }$D arguments %*%V%8%'%/H$ ,MQ0U$ 5$ 1$F$ $$ ?$, ! "ES2015 $G$CHs?<d> )
$H$J$C$?! #

```

<B9TNc

%=%U%H%&%'% "3+H/
Bh 3 2sL\<x6H

J?Ln >Hff8E

Bh 2 2sL\I |=,2}Bj

AQ2s5NI i=,LcB j5N2 fEz

Bh 3 2s- 4X?t

4X2 t5ND j5AJJK 151BFS9=f57

2>0 z7t\$XS N3eF~

2DJQ0z?t\$ t5B5k4X?t

JQ2 t5N6 96 3! <6W

JavaScript \$KS *\$15 k4X?t
\$NFCD'

%/amd <6B8c

<B9TNc\$O< !\$N\$H\$*\$ \$j\$G\$"\$ \$k! #

>sumN(1,2,3,4); //La\$jCM\$O 10

>sumN(1,2,3,4,5); //La\$jCM\$O 15

JavaScript

%=U%&%&'%"3+H/

Bh 3 2sL\<x6H

J?Ln >HHf8E

JQ?t\$N% 9% 3! <%W\$H\$O\$ "\$k> l=j\$G; H\$ o\$ l\$F\$ \$\$ kJQ?t\$, \$ I\$ 3\$ +
\$ i; 2>H\$G\$ -\$k\$+\$H\$ \$\$ &3 5G0

Bh 2 2sL\I |-,2]B j

AQ s6Nl i-,LcB j5N2 zEz

Bh 3 2s- 4X?t

4XQ t5ND j5AJ K l5IB F5 9-F5 7

2:X0 z7t\$X5 N3eF~

2DJQ0 z?t\$ z5 l5 k4XQ t

JQ?t\$N% 9% 3! <%W

JavaScript \$K\$*\$1\$ k4XQ t
\$N\$C'

%/a/m! <4 8% c

1. `Hsstrict %b! <% IG OJQ?t$ Qe k8 @ $ 7$ J$ /Fb; HMQG -
$k! #`
2. `let Kh$ jL@< (E *$KD j5A$ 5$ l$?JQ?t$ O$=$N%V%m% C% /F'b
$GM-8 z`
3. `let $Qe k8 @ $ 5$ l$?JQ?t$ O$=$N%V%m% C% /F'b$ Qe k8 @ $ h$ jA0
$G; HMQI T2D`
4. `4X?tF'b$Gvar Kh$ j@ k8 @ $ 5$ l$?JQ?t$ O4X?t$ N@ hF , $ Qe k
8 @ $ 7$?$HF l$ 8 (JQ?t$N4 , $ ->e$ 2) ! #=i4 |2=$Qe k8 @ $ N0 LCV
$G9 T$ o$ l$ k! #`
5. `4X?t$N3 0$ Qe k8 @ $ 5$ l$?JQ?t$ d@ k8 @ $ 5$ l$ J$ $$ G; HMQ$ 5$ l
$?JQ?t$ O$ 9$ Y$ F% 0% m! <% P% k$ H$ J$ k! #`

$$\frac{Bh}{3} \leq L \leq x_6 H$$

J?Ln >HHf8E

JQ? t\$Nt 9t 3! <tW

JavaScript \$K\$*\$1\$k4X?t
\$NFC'

4X?t\$NCf\$G4X?t\$dj5A\$9\$k\$H! "\$=\$NFbB&\$N4X?tFb\$Gvar \$d
let \$G@k8@5\$1\$?JQ?t\$N\$ [\$+\$K! "01\$D>e\$N4X?t\$GMxMQ\$G\$-
\$k(%9%3!<%W\$K\$"\$k) JQ?t\$,MxMQ\$G\$-\$k!#\$3\$1\$,%9%3!<%W
%A%'%\$\$s\$G\$"\$k!#

%9%3! <%W%A%'%\$%s\$N2 r@b

%=U%H%&%'% "3+H/
Bh 3 2sL\<x6H

J?Ln >Hf8E

Bh 2 2sL\I |=,2}Bj

AQ2 s6NL i=,LcB j5N2 rEz

Bh 3 2s- 4X?t

4X2 t5ND j5AJJK i5iBFS9=FS7

2>Q z?t\$XS N8eF~

2DJQD z?t\$ r5B5k4X?t

JQ2 t5N6 9%3! <4W

JavaScript \$KS *\$ i5 k4X?t
\$NFQ'

%/m! <4B8c

```
let G1, G2;
function func1(a) {
  let b, c;
  function func2() [
    let G2, c;
    ...
  ]
}
```

J?Ln >HHf8E

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JQ? t\$N% 9% 3! <%W\$N3NG' (1)

```
let S = "global";
function func1(){
  console.log(S);
  return 0;
}
```

%=%U%H%&%'% "3+H/
Bh 3 2 sL\<x6H

J?Ln >HHf8E

Bh 2 2 sL\I |=,2}B j

AQ2 s6NL i=,LcB j5N2 rEz

Bh 3 2 s- 4X?t

4X2 t5ND j5AJJK i5iBFS9-r67

2>Q z?t\$XS N6eF~

2DJQD z?t\$ r5 i5 k4X?t

JQ? t\$N% 9% 3! <%W

JavaScript \$KS *\$ i5 k4X?t
\$NF CD'

%/amd <48% c

JQ? t\$N% 9% 3! <%W\$N3NG' (2)

```
let S = "global";  
function func2(){  
  console.log(S);  
  let S = "local";  
  console.log(S);  
  return 0;  
}
```

%=%U%H%&%'% "3+H/
Bh 3 2sL\<x6H

J?Ln >Hf8E

Bh 2 2sL\I |=,2}Bj

AQ2 s6NI i=,LcB j5N2 rEz

Bh 3 2s- 4X?t

4XQ t5ND j5AJJK i5iBFS9-r67

2>Q z?t\$XS N6eF~

2DJQD z?t\$ r5 i5 k4X? t

JQ?t\$N% 9% 3! <%W

JavaScript \$KS *\$ i5 k4X? t
\$NFQD'

% /amd <48% c

J?Ln >HHf8E

JQ? t\$Nt 9t 3! <tW

JavaScript \$K\$*\$1\$k4X?t
\$NFCD'

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JQ?t\$N%9%3! <%W\$N3NG' (4) 2 r@b

%=%U%H%&%'% "3+H/
Bh 3 2 sL\<x6H

J?Ln >HHf8E

Bh 2 2 sL\I |-,2JBj

AQ2 s6NI i=,LcB j5N2 rEz

Bh 3 2 s- 4X?t

4X2 t5ND j5AJJK i5iBF5S-F57

2>Q z?t\$XS N3eF~

2DJQD z?t\$ r5 i5 k4X?t

JQ2 t5N%9%3! <4W

JavaScript \$KS *\$ i5 k4X?t
\$NFCD'

%/amd <48% c

- ▶ %m! <%+%kJQ?tS \$NCM\$ r@_D j\$ 7\$F\$ \$\$k! #
- ▶ \$=\$N8 e\$N=PNO\$O@_D j\$ 7\$?CM\$H\$ J\$ k! #

```
>func4();  
local in func4  
0
```

JQ? t\$N% 9% 3! <% W\$N3NG' (5)

%=%U%&%&%'"3+H/
Bh 3 2sL\<x6H

J?Ln >HHf8E

Bh 2 2sL\I |-,2jBj

AQ2 s6Nl i-,LcB j5N2 zEz

Bh 3 2s- 4X?t

4XQ t5ND j5AJ K151B F59- F57

2>Q z7t5X5 N3eF~

2DJQD z7t5 z5 H5 k4X? t

JQ? t5N% 9% 3! <% W

JavaScript \$K5 *\$15 k4X? t
\$NFCD'

% /%ml <%8% c

- ▶ 4X?t% *%V%8%'%/%H\$ rJQ?t func5 \$KB eF ~\$ 7\$ F\$ \$\$ k! # \$ 3\$ 1
\$ K\$ h\$ j func5() \$ H\$ \$\$ &4X?t\$, D j5A\$ 5\$ 1\$ k! #
- ▶ JQ?t @ k8 @ \$, \$ J\$ \$\$ N\$ GJQ?t func5 \$ O% 0% m! <% P% kJQ?t \$ H
\$ J\$ k
- ▶ func5() Fb\$ G\$ QJQ?t S \$ NF' bMF\$ r= PNO\$, D j5A\$ 5\$ 1\$ F\$ \$\$ k! #
- ▶ func4() \$ r<B9 T\$ 7\$?8 e\$ G\$ O func5() \$, <B9 T\$ G\$ -\$ k! #
- ▶ 4X?t func5() \$, D j5A\$ 5\$ 1\$?CJ3, \$ G\$ NJQ?t S \$ O\$ 3\$ N4X?t
\$, func4() \$ NC f\$ G j5A\$ 5\$ 1\$ F\$ \$\$ k\$ N\$ G! "18 9 TL \ \$ NJQ?t
S \$, ; 2> H\$ 5\$ 1\$ k! #

func5();

local in func4

0

4 X? t\$ b% G! < % ?

UHF' "3+H/

Bh 3 2 sL \<x6H

J?Ln>HHf8E

JavaScript \$K\$*\$1\$k4X?t
\$NFC'

- ▶ 4X?t\$b%G! <%?7 ?\$N\$R\$H\$D\$J\$N\$G! "4X?t\$ND j5A\$ rJQ?t\$KBeF~\$9\$k\$3\$H\$, \$G\$-\$k! #
- ▶ BeF~\$O\$ \$\$D\$G\$b\$G\$-\$k\$N\$G! "<B9T; ~\$K4X?t\$ND j5A\$ rJQ\$ (\$k\$3\$H\$b2DG=
- ▶ 4X?t\$NL\$a\$ jCM\$H\$7\$F4X?t<+BN\$ rJV\$9\$3\$H\$b2DG=

L5L>4X? t\$H% 3! <%k%P%C%/4X?t

%=U%H&%'%"3+H/

Bh 3 2sL\<x6H

J?Ln >Hf8E

Bh 2 2sL\I |-,2JBj

AQ s6NI i-,LcB j5N2 rEz

Bh 3 2s- 4X?t

4XQ t5ND j5AJ K151B F5S-P57

2>0 z7t\$XS N5eF~

2DJQD z?t\$ r5 H5 k4X? t

JQ? t5N5 9% 3! <4W

JavaScript \$KS *\$15 k4X?t
\$NFCD'

% /amd <48h c

- ▶ 4X?t% *%V% 8%' % /%H\$ O4X?t\$ N0 z?t\$ H\$ 7\$ FD>@ \EO\$ 9\$ 3\$ H\$b
\$ G\$ -\$ k! # \$=\$N4X?t\$ K\$ OL>\$, \$ J\$ /\$ F\$b\$ h\$ \$ (L5L>4X?t)! #
- ▶ % \$% Y% s% H(% ^% &% 9\$, % /% j% C% /\$ 5\$ 1\$?! "0 lD j\$ N; ~4V\$, 7P2 a
\$ 7\$?) \$,H/@ 8\$ 7\$?\$ H\$ -\$ K! "\$=\$N=hM }\$ r9 T\$ &4X?t\$ rEPO?
\$ 9\$ kI ,MW\$, \$ "\$ k! # \$ 3\$ N\$ h\$ &\$ K4X?t\$ K0 z?t\$ H\$ 7\$ FEO\$ 5\$ 1
\$ k4X?t\$ N\$ 3\$ H\$ r% 3! <%k%P%C%/4X?t\$ H\$ \$\$ &! #

J?Ln>HHf8E

JavaScript \$K\$*\$1\$k4X?t
\$NFCD'

L5L>4X?t\$NNc\$N2r@b

%=%U%H%&%'% "3+H/

Bh 3 2sL\<x6H

J?Ln >HHf8E

Bh 2 2sL\I |-,2JBj

AQ2 s6NL i-,LcB j5N2 zEz

Bh 3 2s- 4X?t

4X2 t5ND j5AJ jK l5iB F5S- F57

2x0 z7t\$X5 N5eF~

2DJQ0 z7t\$ r5 l5 k4X2 t

JQ2 t5N5 9k 3! <8W

JavaScript \$K5 \$5 l5 k4X2 t
\$NFCD'

% /%ml <8Bc

- ▶ #19TL\ \$G\$O<B9T3+; O; ~\$N; ~4V\$ rJQ?t T \$K3JG<! #C10L\$O %_% jIC! #
- ▶ \$3\$N%a%=%C% I\$O0 lD j; ~4V7P2 a8e\$K8F\$S=P\$5\$ l\$ k4X?t\$H! "<B9T\$5\$ l\$ k7P2a; ~4V(C10L\$O%_% jIC) \$r0z?t\$K<h\$k! #
- ▶ <B9T\$9\$ k4X?t\$O3 9TL\ \$+\$i9 9TL\ \$GD j5A\$5\$ l\$F\$ \$\$k! #
- ▶ \$3\$N4X?tFb\$G0 lD j\$N> r7 o\$N\$H\$-\$O\$3\$N4X?t\$ r8F\$S=P\$9! # \$3\$N4X?t\$NL>A0\$OcallMe(3 9TL\)! #
- ▶ 4 9TL\ \$G8F\$S=P\$5\$ l\$?\$H\$-\$N; ~4V\$ r5a\$a! "7P2a; ~4V\$, 10000 %_% jIC0J2 <\$G\$ "\$ l\$P(5 9TL\)! "7P2a; ~4V\$ rICC1 0L\$GI≡ (\$9\$k(6 9TL\)! #
- ▶ \$5\$ i\$K! "<+J, <+?H\$ r1 IC8e\$K8F\$S=P\$9(7 9TL\)! #

<+8 JK B9 T4 X? t\$NI ,MW@ -

%=%U%H%&%'% "3+H/
Bh 3 2sL\<x6H

J?Ln >HHf8E

Bh 2 2sL\I |-,2JB J

AQ2 s6NI i-,LcB j5N2 zEz

Bh 3 2s- 4X?t

4X2 t5ND j5AJ K l5lB F5 9-F5 7

2>0 z7t\$XS N3eF~

2DJQD z?t\$ z5 l5 k4 X? t

JQ2 t5N6 96 3! <l5W

JavaScript \$KS \$5 l5 k4 X?t
\$NFCD'

% /amd <l58c

< !\$N% 3! <% I9M\$ (\$k! #

```
let i;  
for(i=1;i<10;i++) {  
    console.log(i+" "+i*i);  
}
```

\$ 3\$N% W%m% 0% i% '\$ r<B9 T\$ 9\$ k\$ H1 \$+\$ i9 \$ ^\$ G\$ NCM\$ H\$=\$ l\$ N2
>h\$ NCM\$, %3% s%!=! <% k\$ K=PNO\$ 5\$ l\$ k! #<B9 T8 e\$ K! "%3% s%!=! <% k
\$ Ki \$ HF ~NO\$ 9\$ l\$ P10 \$,=PNO\$ 5\$ l\$ k! #
4X?t\$ rD j5A\$ 9\$ l\$ P! "\$=\$ N4X?t\$ O% 0% m! <% P% k6 u4 V\$ K; D\$ k! #

<+8 J<B9 T4 X? t\$NNc

%=%U%H%&%'% "3+H/
Bh 3 2sL\<x6H

J?Ln >HHf8E

D j5A\$ 7\$?4 X? t\$ r\$=\$N> l\$ G<B9 T\$ G\$-\$k5 !G=

Bh 2 2sL\I |-,2JBJ

AQ2 s6NI i-,LcB j5N2 zEz

```
(function(){
```

Bh 3 2s- 4X?t

```
  let i;
```

4X2 t5ND j5AJ JK l5lB F5 S-P5 7

```
  for(i=1;i<10;i++) {
```

2:X 27t\$XS N5eF~

2DJQ0 x? t\$ r5 l5 k4 X? t

```
    console.log(i+" "+i*i);
```

J?Q? t5N5 9% 3! <4W

```
  })();
```

JavaScript \$KS \$5 l5 k4 X? t
\$NFCD'

% /amd <4 8% c

4X?t\$ND j5A\$ rA4BN\$G() \$G0O\$ _! "\$=\$N\$ "\$H\$K4X?t\$N8F\$S=P\$7

\$r<(\$9\$?\$a\$N()) \$rIU\$1\$k! #

\$3\$N5;K!\$O! "=i4 |2=\$NCJ3,\$G1 2s\$7\$+<B9T\$7\$J\$;\$; wJA\$r5-

=R\$7! "\$+\$D%0%m! <%P%k\$J6u4V\$ r1 x\$5\$J\$\$(M>7W\$JJQ?t\$J\$I\$r

;D\$5\$J\$)\$ <jcJ\$H\$7\$EMQ\$ \$\$i\$1\$k! #

let \$GJQ?ti \$rfor Fb\$G@k8@ \$9\$k\$H! "\$=\$NJQ?t\$Ofor J8Fb

\$G\$7\$+B8:_\$7\$J\$ \$! # \$ ^\$?! "%9%3! <%W\$N5,B'\$ \$,> /\$70 [\$J\$k! #

% /%m! <% 8% c\$ H\$ O

%=U% H% &% ' % "3+H/
Bh 3 2sL\<x6H

J?Ln >Hhf8E

Bh 2 2sL\I |-,2jBj

AQ2 s6NI i-,LcB j5N2 zEz

Bh 3 2s- 4X?t

4X2 t5ND j5AJ jK i5Hf8S9-P87

2>Q z? t\$ X5 N3eF~

2DJQ z? t\$ r5 H5 k4X? t

JQ? t5N6 9% 3! <W

JavaScript \$K5 *\$ i5 k4X? t
5NfCQ'

%/m! <8% c

- ▶ 4X? tF'bI t\$ G8 k8 0\$ 5\$ 1\$?JQ? t\$ O! "\$=\$N3 0B &\$ +\$ i; >H\$ 9\$ k
\$ 3\$ H\$, \$ G\$ -\$ J\$ \$! #
- ▶ \$=\$N4 X? t\$ O4 X? tF'b\$ N% m! <% +% kJQ? t\$ rJD\$ 89 ~\$ a\$ F\$ \$\$ k! #
- ▶ 4X? tF'bI t\$ GD j5 A\$ 5\$ 1\$?4 X? t\$ r3 0I t\$ K; }\$ A=P\$ 9 (% 0% m! <% P
% k\$ J4 X? t\$ K\$ 9\$ k) \$ H! "; }\$ A=P\$ 5\$ 1\$?4 X? t\$ N% 9% 3! <% W% A% '
% \$% sF'b\$ KD j5 A\$ 5\$ 1\$?? F\$ N4 X? t\$ N% 9% 3! <% W\$ r0 z\$ -7 Q\$ \$\$ G
\$ \$\$ k\$ 3\$ H\$ +\$ i! "? F\$ N4 X? t\$ N% m! <% +% kJQ? t\$ N; >H\$, 2 DG=

4X? t\$ KB P\$ 7\$ F0 MB 8\$ 9\$ k4 D6 - (JQ? t\$ d8 F\$ S=P\$; \$ k4 X? t\$ J\$ I\$ N% j
% 9% H) \$ r9 g\$ o\$; \$?\$ b\$ N\$ r\$ =\$N4 X? t\$ N% /% m! <% 8% c\$ H8 F\$ V! #

%/%m! <%8% c\$NNc - JQ?t\$ r1 # \$ 9

%=%U% H%&% ' % "3+H/
Bh 3 2 sL\<x6H

J?Ln >Hh f8E

```
function f1() {  
  let n=0;  
  return function() {  
    return n++;  
  };  
}
```

Bh 2 2 sL\I |-,2}Bj

AQ2 s6NI i-,LcB j5N2 zEz

Bh 3 2 s- 4X?t

4X2 t5ND j5AJ JK i5iB F5 9- F5 7

2>0 z7t\$X5 N3eF~

2DJQD z? t5 z5 i5 k4X? t

JQ2 t5N6 96 3! <4W

JavaScript \$K5 *\$ i5 k4X? t
5iF Q'

%/m! <48% c

<B9Tnc(JQ?t n \$,; >H\$ G\$ -\$ J\$ \$)

```
>ff= f1();  
( ) {  
  return n++;  
}
```

>n;

VM351:2 Uncaught ReferenceError: n is not defined(!D)

%/%m! <% 8% c\$NNc - JQ?t\$ r1 # \$ 9 (<B9 TN c\$=\$N2)

%=%U%H%&%'% "3+H/
Bh 3 2 sL\<x6H

J?Ln >Hf8E

JQ?t n \$OB8: _ \$ 7\$ F\$ \$\$ k

Bh 2 2 sL\I |-,2)Bj

>ff();

AQ2 s6NL i-,LcB j5N2 zEz

0

Bh 3 2 s- 4X?t

>ff();

4X2 t5ND j5AJ JK i5iB F5 9- F5 7

1

2:X 27 t5XS N5eF~

>ff();

2DJQD z?t5 z5 i5 k4 X? t

2

JQ2 t5N6 96 3! <4W

>ff2=f1();

JavaScript \$KS *\$ i5 k4 X? t
5iF Q'

() {

%/a ml <4 8% c

return n++;

}

>ff();

2

>ff2();

0

%/%m! <% 8% c\$NNc - JQ? t\$ r1 # \$ 9 (2 r@b)

%=U% H% &% ' % "3+H/
Bh 3 2 sL\<x6H

J?Ln >Hf8E

Bh 2 2 sL\I |-,2jBj

AQ s6NI i-,LcB j5N2 rEz

Bh 3 2 s- 4X?t

4X? t5ND j5AJ K l51B F5 9-r5 7

2:X 2? t5 X5 N5 e~

2DJQ 2? t5 r5 B5 k4X? t

JQ? t5 N5 95 3! <5W

JavaScript \$ K5 *5 l5 k4X? t
5NF CD'

%/m! <58c

- ▶ JQ? t f f \$ K4X? t f 1 () \$ GJV\$ 5\$ l\$ k4X? t % *% V% 8% ' % /% H\$ rBe
F ~\$ 9\$ k! #
- ▶ f 1 () F b\$ N% m! <% +% kJQ? t\$ O; 2> H\$ G\$ -\$ J\$ \$! #
- ▶ 4X? t f 1 () \$ r<B9 T\$ 7\$ F! "La\$ jCM\$ N4X? t\$ r<B9 T\$ 9\$ k\$ H! "
f 1 () F b\$ N% m! <% +% kJQ? t\$,; 2> H\$ G\$ -\$ F\$ \$ \$ k! #
- ▶ 2 ?2 s\$ +<B9 T\$ 9\$ k\$ HL a\$ jCM\$,=g\$ KA }2 C\$ 7\$ F\$ \$ \$ k\$ 3\$ H\$, \$ o
\$ +\$ k! # \$ D\$ ^\$ j! "% m! <% +% k\$ K\$ QJQ? t n \$,B8: _\$ 7\$ F\$ \$ \$ k! #

```
$b$ &0 lEY4X?t f1() $ r<B9T$ 9$ k$H? 7$ 7$ $4X?t$,F@$ i$ l$k! #
>ff2=f1();
() {
    return n++;
}
>ff();
2
>ff2();
0
```

%=%U%H%&%'% "3+H/

Bh 3 2sL\<x6H

J?Ln >Hhf8E

Bh 2 2sL\I |=,2}Bj

AQ2 s6NI i=,LcB j5N2 zEz

Bh 3 2s- 4X?t

4X2 t5ND j5AJJK i5iBf5 9=f5 7

2>0 z7t\$X5N3eF~

2DJQD z?t\$ z5B5k4X2 t

JQ2 t5N6 96 3! <4W

JavaScript \$K5*\$5 l5k4X2 t
\$NFQ'

%/a! <48c

L5L>4X?t\$ r\$=\$N> l\$ G<B9 T\$ 9\$ k (2 r@b)

%=U%H%&%'% "3+H/
Bh 3 2sL\<x6H

J?Ln >Hf8E

Bh 2 2sL\I |-,2jBj

AQ2 s6Nl i-,LcB j5N2 zEz

Bh 3 2s- 4X?t

4XQ t5ND j5AJ jK l5iB F9 S- F5 7

2:X0 z7t\$XS N3eF~

2DJQD z? t\$ r\$ H5 k4XQ t

JQ2 t5N6 9% 3! <4W

JavaScript \$K5 *\$ l5 k4XQ t
5NF CD'

%/a ml <48% c

► L5L>4X?t\$ rD j5A\$ 7\$?I tJ, \$ r () \$ G\$ /\$ /\$ j! "0 z?t% j% 9% H\$ r
\$=\$N8 e\$ N () \$ K5 -=R\$ 9\$ k! # \$ 3\$ 3\$ G\$ O! "0 z?t\$, \$ J\$ \$ N\$ G\$ f
\$ O\$ J\$ \$! #

► La\$ 5\$ l\$?4X?t% *% V% 8% ' % /% H\$ rJQ?t f o o \$ K B e F ~\$ 9\$ k! #

► A0\$ H F l\$ 8\$ h\$ &\$ K<B9 T\$ G\$ -\$ k! #

>foo();

0

>foo();

1

>foo();

2

$$\frac{B_h}{3} \geq \frac{2 s_L}{\sqrt{x_6 H}}$$

J?Ln >HHf8E

```
function f2() {
```

```
let a = [];
```

```
let i;
```

```
for(i=0; i<3; i++) {
```

```
a[i] = function() {
```

```
return i;
```

} ;

}

```
return a;
```

}

```
>funcs=f2()
```

```
[function a.(anonymous function)(), function a.(anonymous fun
```

```
function a.(anonymous function)()]
```

```
>funcs[1]()
```

3

\$ 9\$ Y\$ FF 1\$ 8CM\$ rJV\$ 94 X?t\$ K\$ J\$ C\$ F\$ 7\$ ^\$ C\$ F\$ \$\$ k! #

JavaScript \$K\$*\$1\$k4X?e
\$NFCd'

$\frac{1}{2} / \frac{1}{2} m! \leq \frac{1}{2} B! c$

$$\frac{B_h}{3} \leq \frac{2\pi L}{\lambda} < \frac{x_6 H}{H}$$

JavaScript \$K\$*\$1\$k4X?t
\$NFC'

 $\frac{1}{2} / \frac{1}{2} \text{ ml} \leq 8\% \text{ c}$

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