

This is CS50

Week 2

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Preceptor

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Today

- Compilation
- Arrays
- Strings
- Command-line Arguments
- Problem Set 2

Compilation

```
int main(void)
{
    print("Hello");
}
```

```
...  
main:  
# @main  
    .cfi_startproc  
# BB#0:  
    push    %rbp  
.Ltmp0:  
    .cfi_def_cfa_offset 16  
...
```


Arrays

W,
O,
R,
H, E, L, L, O,
D,

H
4

L
1

E
1

O
1

L
1

H	E	L	L	O
4	1	1	1	1

H	E	L	L	O
4	1	1	1	1

8 points

good morning 🌞 it's a new day!

how was last night? 👁️👁️

how many hours did you sleep last night? *

7.5

how many times did you snooze your alarm this morning? * (hint: dont lie! 🙊)

2

how was your sleep last night? *

BEST NIGHT EVER! good eh...it was okay not so good didn't sleep a wink T_T

your morning mood? *

😊 😊 😊 😊 😊 😊 😊

what are your goals for today?

be brave, be bold, and be courageous!

did you have a dream last night? do you remember it?

record your dream last night if you remember :)

submit diary

7

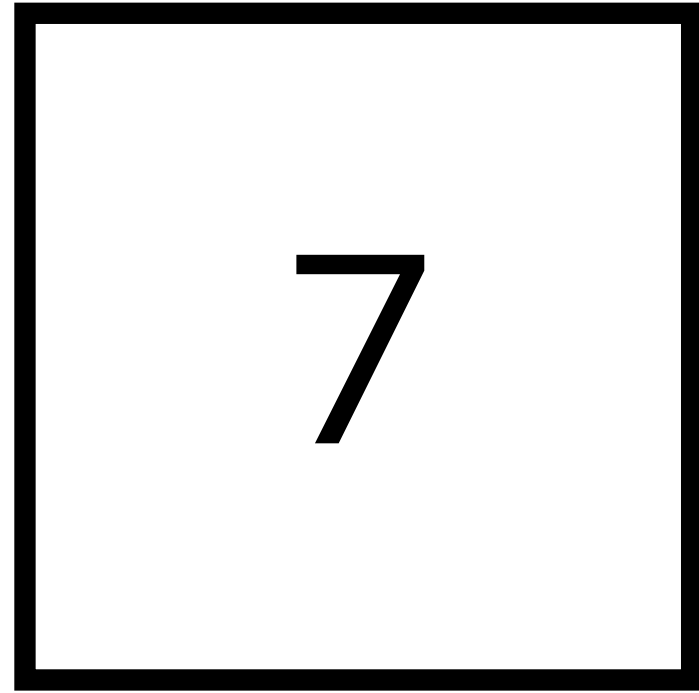
6

8

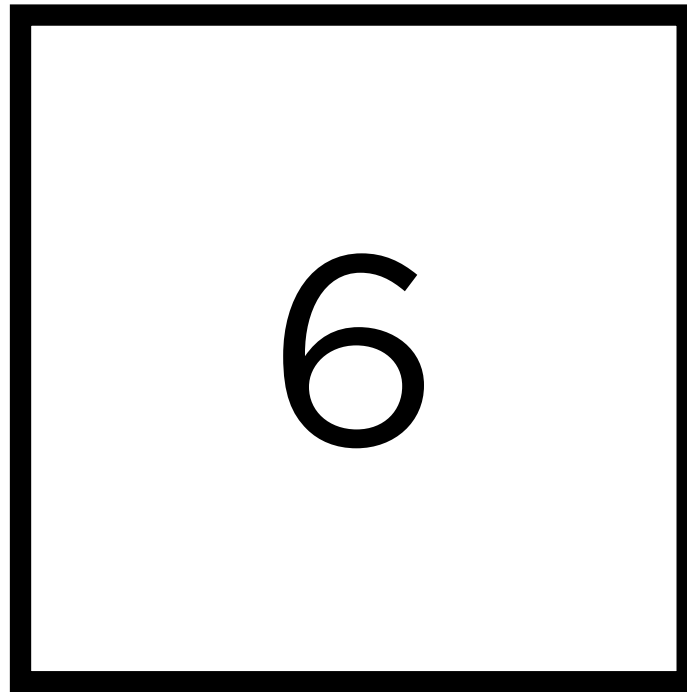
8

7

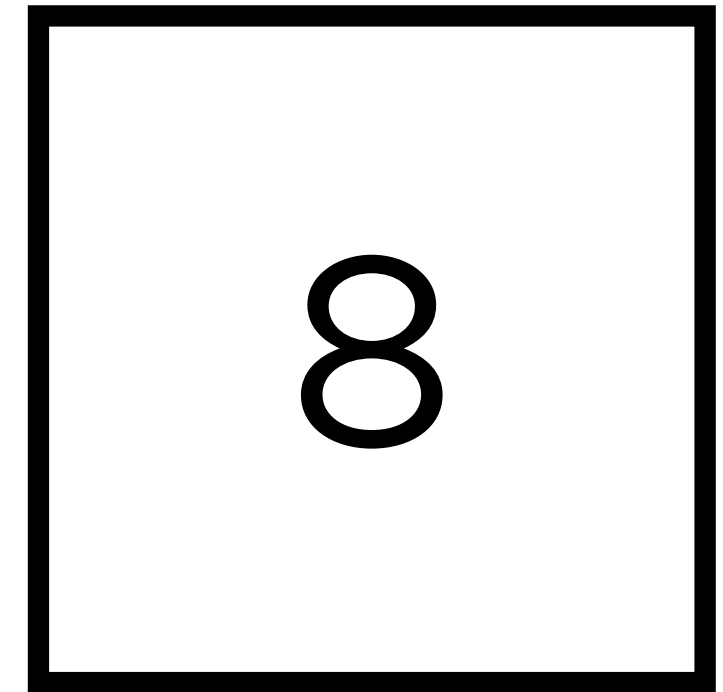
night1



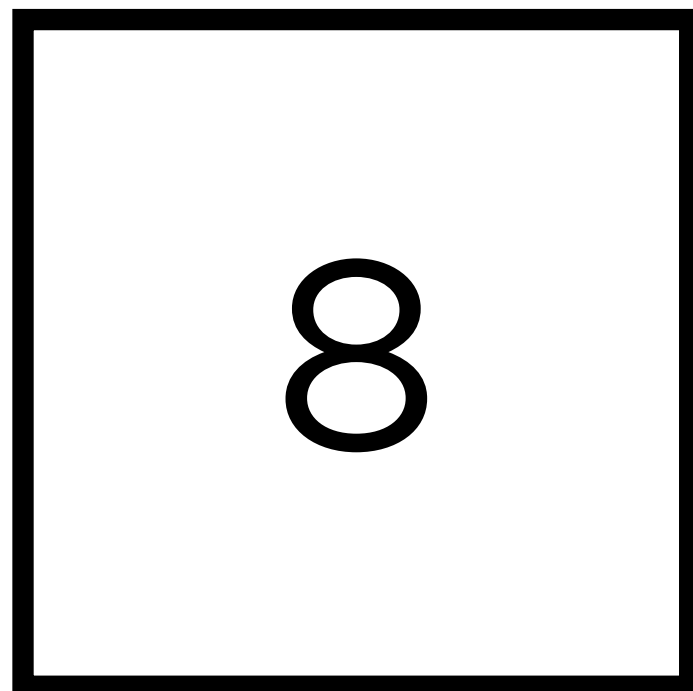
night3



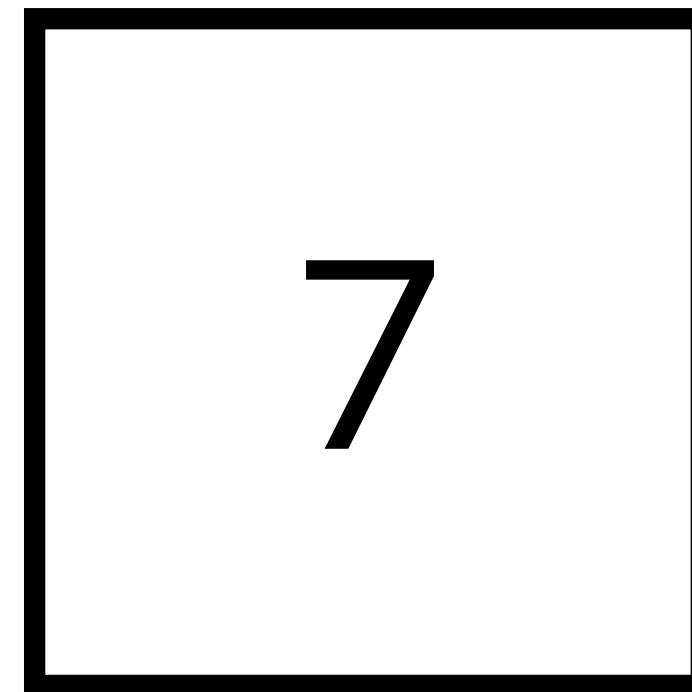
night5



night2



night4



nights

7	8	6	7	8
---	---	---	---	---

nights[0]

7	8	6	7	8
---	---	---	---	---

nights[1]

7	8	6	7	8
---	---	---	---	---

nights[2]

7	8	6	7	8
---	---	---	---	---

nights

7	8	6	7	8
---	---	---	---	---

0

1

2

3

4

nights

7	8	6	7	8
---	---	---	---	---

Name

nights

7	8	6	7	8
---	---	---	---	---

Size

nights

7	8	6	7	8
---	---	---	---	---

Type

```
int nights[5];
```



```
int nights[5] = {7, 8, 6, 7, 8};
```

Doubling Up

- Create an array of integers in which each integer is 2 times the value of the previous integer.
- The first element is 1.
- Print the array, integer by integer.

Strings

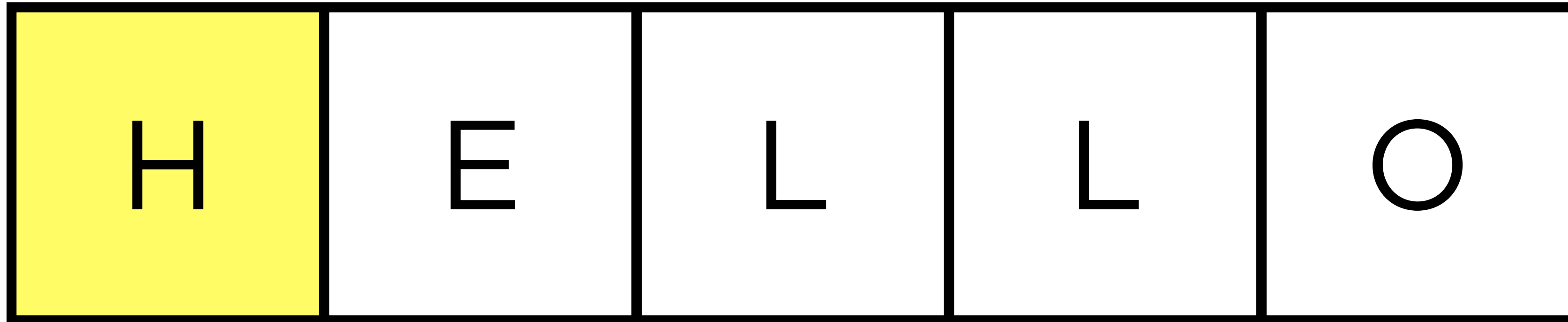
H	E	L	L	O
4	1	1	1	1

8 points

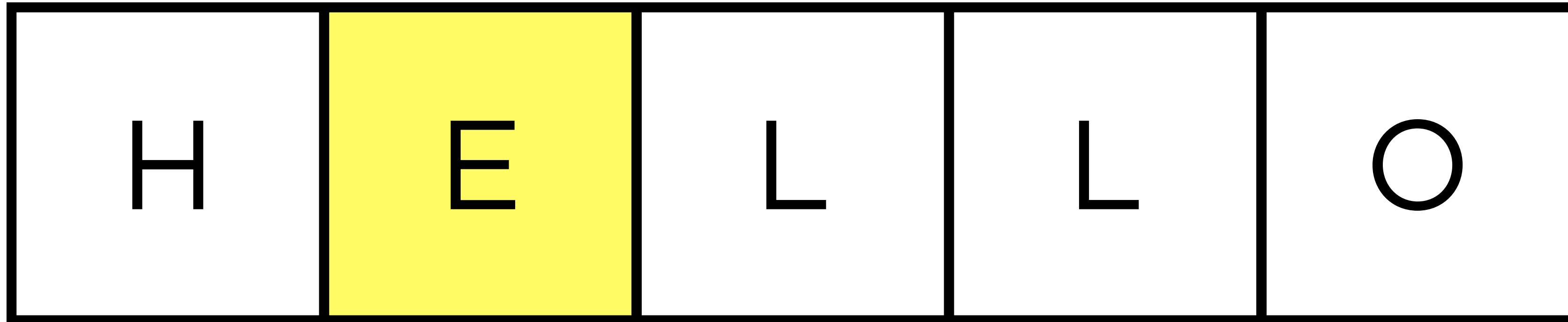
phrase

H	E	L	L	O
---	---	---	---	---

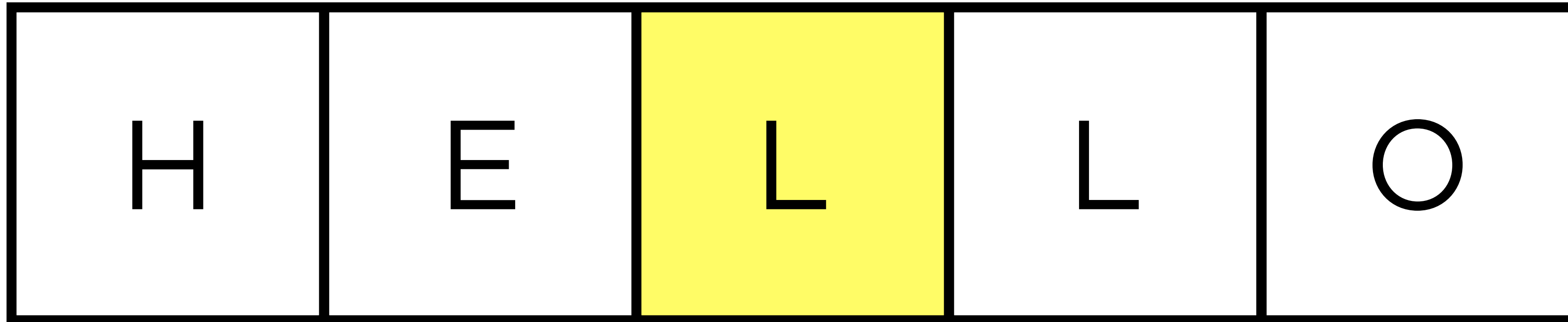
phrase[0]



phrase[1]



phrase[2]



Character	Integer
A	65
B	66
C	67
...	...

phrase

H	E	L	L	O
---	---	---	---	---

phrase

72	69	76	76	79
----	----	----	----	----

Alphabetical

- Write a program to check if an array of characters is in alphabetical order.
- Assume the characters are all uppercase.

Command-line Arguments

```
$ ./mario
```

```
H: 8
```

```
$ ./mario
```

```
H: 8
```

```
int main(void)
{
    int height = get_int("H: ");
}
```

```
$ ./mario 8
```



```
$ ./mario 8
```

```
int main(int argc, string argv[])  
{  
  
}
```

argv

- Write a program that prints each command-line argument given to the program

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