

CSE 160 Section 2

Welcome :)

Logistics

Due 10/10: HW1

- expressions, printing, loops

Due 10/12: Practice Problems Check in #1

Due 10/14: Practice Problems Check in #2

Note: we have an office hours queue - please use it :)



Lecture Key Points Review

Loops

- You can pick any variable name in place of “i”
- Indentation is important - statements must be indented to be inside the loop

```
for i in [0, 1, 2, 3]:  
    print(i)
```

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Loops

Motivation:

- avoid repeating code
- code more readable
- avoids bugs
- easily change number of repetitions



Range

- `range(start, stop, step)`
- for example: `range(0, 3, 1)` loops through `[0, 1, 2]`
- `range(start, stop)` # step is 1
- `range(stop)` # start is 0, step is 1

- Start is inclusive, stop is exclusive (stops before that number)

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Section Handout Problems

- We won't get through all problems, but solutions will be posted!
- Great practice - go to OH if you have questions!

1. What is the data type?

- a. 42
- b. $42 + 91 / 3.0$
- c. $42 / 5 + 2.0$
- d. True
- e. $42 < 45$
- f. Not $42 < 91$
- g. "May the force be with you."
- h. `float(3) < 9`



2. list to range and range to list

- a. `[0, 1, 2, 3]` - `range(0,4,1)` OR `range(4)`
- b. `[-4, -3, -2, -1, 0]` - `range(-4, 1, 1)`
- c. `list(range(0, 10, 2))`
- d. `list(range(2,11,3))`
- e. `[25, 20, 15, 10, 5, 0]`
- f. `list(range(1000, -100, -100))`



3. What is the output?

```
for value in [1,3,5]:  
    print(value + value ** 2)
```

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4. Write a for loop for this output:

24

27

30

33

36



5. What is the output?

```
for i in [1,2,3]:  
    for j in [1,2,3]:  
        print(i+j)
```

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6. What is the output?

```
sum = 0
for i in [1,2,3]:
    for j in [1,2,3]:
        sum = sum + i
print(sum)
```

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Homework 1

HW 1 Overview

- Intro to Python
- Use autograder to validate work
- Watch out for formatting errors - flake8!
- Diffchecker is useful tool



Thanks :)
