

David H Smith IV

University of Illinois Urbana-Champaign

Mon, June 21 2021

- Homework 2 is posted:
 - Due at 11pm (CST) this Friday (June 25)
 - Overs two topics:
 - Topic 2 Today's lecture and your last reading
 - Topic 3 Wednesday's lecture.
 - Start homework early
- Post-Reading 3 and zyBook topic 3 participation activities due tommorow at 11:00pm (CST).
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 - http://cbtf.engr.illinois.edu/sched/
 - includes interface for requesting conflict exams

Muddiest Points



Poll Question: Spreadsheets

If I copy the contents of B1 to C4 what formula will be in C4?

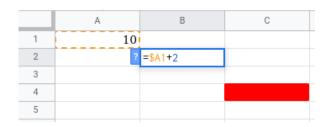
$$\bullet$$
 =\$A0 + 2

$$= $A2 + 2$$

$$\bullet$$
 =\$C0 + 2

$$= C2 + 2$$

$$6 = C3 + 2$$



Poll Question: Python Naming

Which are legal python names?

- ____
- 12monkeys
- I33tCoder42
- ① 1 and 2
- 2 1 and 3
- 2 only
- 2 and 3
- **1**, 2, and 3

Poll Question: Program Tracing

What is the value of y after this code executes?

$$x = 2$$

$$y = x + 3$$

$$x = 5$$

- **1** 2
- **2** 3
- **3** 5
- **4** 8
- **1**0

Poll Question: Program Tracing

What get outputted to the screen as a result of running the following program if the user types in 5?

```
x = input(Enter a number: )
y = x + 3
print(y)
```

- TypeError
- SyntaxError
- **3** 53
- **4** 8

Poll Question: Program Tracing

Result of running this code if the user types in 2 and 10?

```
x = int(input())
y = int(input())
z = x + y
print(z)
```

- TypeError
- SyntaxError
- **3** 12
- **210**

Poll Question: Spreadsheets

What will be the expression when the cell at B0 is copied to D4?

$$= C1+C2$$

$$= A$1+D4$$

$$= A$1+$A4$$

$$= A$1+A5$$

	А	12 × B	С	D
1	10	=\$A\$1+\$A2		
2	2			
3	1			
4	0			
5	-1			

Poll Question: Whitespace

Which of the following are considered whitespace?

- Spaces
- Tabs
- Newlines
- Spaces and Tabs
- Spaces, Tabs, and Newlines

Poll Question: Whitespace

Which of the following are considered whitespace?

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Whitespace is any character that takes up vertical or horizontal space bu does not produce an otherwise visible mark.

Topic Review: Escape Character

- Treat backslash(\) as a special character
- \means that the character immediatly following it should be treated differently.
 - \' and \" escape quotes within a string.
 - \t encodes a tab.
 - \n encodes a new line.
 - ◆ \\ encodes a slash.

Poll Question:

How many of the following characters are visible on the screen?

- **9** 1
- **2** 2
- **3**
- **4**
- **5**

Poll Question: Python Literals

Which of the following is not a valid Python literal?

- **1.00001**
- 1E-7
- **3** 1,097
- **4** -3.00

Division, Floor Division, and Modulo

- Division operator (/) gives best approximation to true result and always return a float.
- Ploor division (//) rounds down the closet whole number. The type of the result will follow the normal rules.
- Modulo operator(%) performs a division and returns the remainder. The type of the result will always be the same.
- For any numbers x and y, the following equality holds: (y == (y // x) * x + (y % x))

Poll Question: More Math Operators

Which computes how many (whole) apples I can give to each friend?

- num_friends / num_apples
- num_apples / num_friends
- num_friends // num_apples
- num_apples // num_friends
- num_friends % num_appples
- num_apples % num_friends

Order of Operations in Python

- Parentheses precedence
- Exponentiation
- Positive and negative
- Multiplication, Division, Modulo
- Addition, Subtraction precedence



Note: Python evaluates from left to right within a precedence level

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