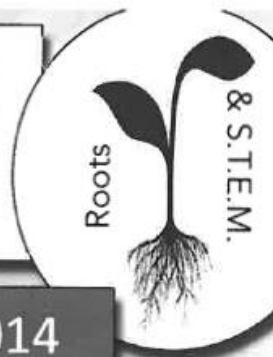


Clicker Groups			
Gabriel Simon	Peter Adler Asch	Frederick Olsen	Row 1, right
Rand Zalzala	Lydia Smith	Katherine Moncure	Row 1, left
Bill Derrah	Ian Gilchrist	Xincheng (Tony) Li	Row 2, right
Carey Lyons	Ruthie Wittenberg	Keeley Hagenbuch	Row 2, right
Joel Miller	Hunter Zepeda	Jack Benson	Row 2, left
Katerina Walter	Krista Langhans	Sakina Lavingia	Row 2, left
Venkata Shiva Mandala	Michael Jacobs	Aaron (Shang Wei) Young	Row 3, right
Linnea Kirby	Eleanor Spielman-Sun	Sophia Tinger	Row 3, right
Kiran Melnyk	Randanno Tallini	Ethan Cohen	Row 3, left
Meriel Stein	Mia Russell	Phoebe Anderson-Kline	Row 3, left
Connor Jackson	Santiago Gonzalez	Daniel Laufer	Row 4, right
Kirsten Vail	Claire Shank	Sol Solomon	Row 4, right
Robert Sohmer	Ben Shepherd	Kevin Barrett Kelly	Row 4, left
Emily Cohn	Olivia Fountain	Amy Campbell	Row 4, left
Ian Hankin	Max Bernstein	Ari Schwartz	Row 5, right
Rachel Schwartz	Einav Silverstein	Jamie Finucane	Row 5, right
Kepler Mears	Kinori Rosnow	Charlie Perry	Row 5, left
Jordon O'Donnell	Kinsey Denney	Meredith Leung	Row 5, left
Simeon Deutsch	Nate Kirk	Evan Davies	Row 6, right
Nicholas Music	Griffin Jennings	John Burnett	Row 6, right
Alejandro Verdugo Guzman	Arturo Octavio	Pete Sinn	Row 6, right
Jules Metcalf-Burton	Andrew Groble	Andrew Winslow	Row 6, left
Michael Orenstein	Joshua Hess	Melchior Maetzener	Row 6, left
Sam Meier	Eli Ferster	Gabe Smith	Row 6, left
Dan Lev	Cole Blouin	Zhaoxin (Josh) Hu	Row 7, right
Dan Howard	Brian Carney	Derek Palinski	Row 7, right

CS 150: More Loops

Cynthia Taylor,
Oberlin College
February 10th 2014

Women in S.T.E.M Faculty Panel



Tuesday, Feb. 11, 2014
4:45 - 6:00 p.m.
Craig Lecture Hall,
Science Center



Dr. Chelsea Martinez, Chemistry
Dr. Kate Jones-Smith, Physics
Dr. Cynthia Taylor, Computer Science
Dr. Leslie Kwakye, Neuroscience

Join professors Kate Jones-Smith (physics & astronomy), Chelsea Martinez (chemistry), Cynthia Taylor (computer science), and Leslie Kwakye (neuroscience) for a panel discussion on their careers in the sciences.

We invite scientists and non-scientists alike to attend and participate in what we hope will be an interesting, informative, and fun event.

The session is part of the Roots & STEM events series exploring the human makeup of science, technology, engineering, and mathematics.

Roots & S.T.E.M. is sponsored by Gender, Sexuality and Feminist Studies, Center for Learning, Education, and Research in the Sciences (CLEAR), and the Multicultural Resource Center

For Loop Syntax *print(i)*

`for i in range(7)` *0 1 2 3 4 5 6*

`for i in range(1, 7)` *1 2 3 4 5 6*

`for i in range(0, 7, 2)` *0 2 4 6*

`for i in range(13, 10, -1)` *13 12 11*

To print numbers i through n

for x in range(i, n+1):

A

```
for i in range(1,i):
```

1 ... i-1

B

```
for i in range(1,n):
```

1 ... n-1

C

```
for i in range(1,n+1):
```

1 ... n

D

```
for i in range(i,n):
```

i ... n-1

E. ~~I don't know~~

None of the above

Add up the numbers 1 through 4

A

```
for i in range(1,5):
```

```
    sum = 0
```

```
    sum = sum + i
```

4

B

```
sum = 0
```

```
for i in range(1,5):
```

```
    sum = sum + 1
```

C

```
sum = 0
```

```
for i in range(1,5):
```

```
    sum = sum + sum
```

0 + 0

D

```
sum = 0
```

```
for i in range(1,5):
```

```
    sum = sum + i
```

E. I don't know

```
sum = 0
```

```
for i in range(1,5):
```

```
    sum = sum + i
```

$$4! = \underline{4 \times 3 \times 2 \times 1}$$

Iteration	i	sum (before addition)	sum (after addition)
1	1	0	1
2	2	1	3
3	3	3	6
4	4	6	10

```
n = 4
```

```
for i in range(1, n):
```

```
    print(i, n, end='')
```

```
n = 6
```

n = 4

← same

will print

change

A. 1 4 2 4 3 4

D. This will cause an error

B. 1 4 2 6 3 6

E. I don't know

C. 1 4 2 6 3 6 4 6 5 6

for n in range(1, n)
works, bad plan

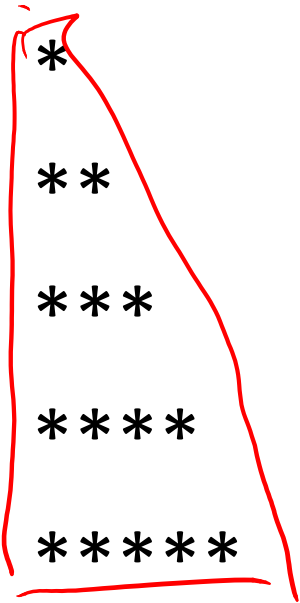
$n = 4$
for i in range(1, n):
 print(i, n)
 $n = 6$

(start, end)

iter	i	n @ print	end
1	1	4	4
2	2	6	4
3	3	6	4
4			4

← Stop!!

Write code to generate this pattern for any n



```
*  
**  
***  
****  
*****
```

Hint: Recall that `print("x"*3)` generates "xxx"

n = 5

Generate this pattern for any n

```
*****  
*****  
*****  
*****  
*****
```

n=5

A

```
for i in range(0,n):  
    print("*"*i)
```

C

```
for i in range(1,n):  
    print("*"*i)
```

B

```
for i in range(0,n):  
    print("*"*n)
```

D

```
for i in range(1,n):  
    print("*"*n)
```

E. I don't know

*i = triangle
changes*

*line of
11055157r*

We want to generate the following pattern (n = 5). How many *s and spaces will we print each row?

```

      *
     ***
    *****
   *********
  ***********
 
```

A red box is drawn around the pattern, and a red line points from the box to the number 9.

Row #	*s	Spaces
1	1	4
2	3	3
3	5	2
4	7	1
5	9	0

For each row r, we should print

for r in $(1, n+1)$

n=5

```

      *
     ***
    *****
   *********
  ***********
 
```

Clicker	Front Spaces	*'s
A	$(n-r)/2$	r
B	$n-r$	$2r$
C	$n-r$	$2r-1$
D	r	$n-r$

$1 \quad (5-1)/2 \quad 2(1)-1$
 $2 \quad 5-2 \quad 2(2)-1$
 $3 \quad 3 \quad 3$

E. I don't know

Next Class

- Nested Loops and the Picture Module
- Reading
 - 4.1-4.2
- CLICKERS ARE MANDATORY on Weds
- Lab 1 – Due Tuesday at 10pm
- Prelab for Lab 2 – Due Wednesday in class