

# Lists

**David H Smith IV**

**University of Illinois Urbana-Champaign**

**Tues, Thu 21 2021**

# Reminders

# Reminders

- Topic 11 participation due Friday
- Post reading 11 due Friday
- Homework 10p2 homework due Friday
- Quiz 3 next week

# Lists

# Poll Question: Tracing

What is the value of `x`.

```
1 x = [v+v for v in ['1', '2', '3']]
```

- ☐ A ['11', '22', '33']
- ☐ B ['1', '2', '3']
- ☐ C [1, 4, 9]
- ☐ D TypeError

# List Comprehensions

```
1 # Basic list comprehension
2 [expression for value in sequence]
3
4 # Conditional list comprehension with if
5 [expresssion for value in sequence if condition]
6
7 #Conditional list comprehension with if-else
8 [expresssion if condition else <default> for value in
   sequence]
```

- Doesn't enable any new functionality
- *Syntactic Sugar*: Makes code more efficient to write

# Poll Question: List Comprehension

What is the value of `y`.

```
1 y = [c for c in 'alma mater' if c in 'aeiou']
```

- ☐ A 'alma mater'
- ☐ B ['alma mater']
- ☐ C 'aaae'
- ☐ D ['a', 'a', 'a', 'e']