CSC 101

Today

- and/or revisited
- Assignment #3 overview
- List Comprehensions

- Assignment #2 resubmit by Thursday 1/28 10pm

A	B	A and B
T	T	T
T	F	F
F	T	F
F	F	F

short-circuit evaluation

if first operand
is <u>False</u>, do ← *determines result*
not evaluate
the second

```
return (type(other) is Point
       and nearly_equal(self.x, other.x)
```

```python
return ( type(other) is Point
        and   nearly_equal(self.x, other.x)

if   type(other) is Point :
     return nearly_equal ...
else:
     return False
```
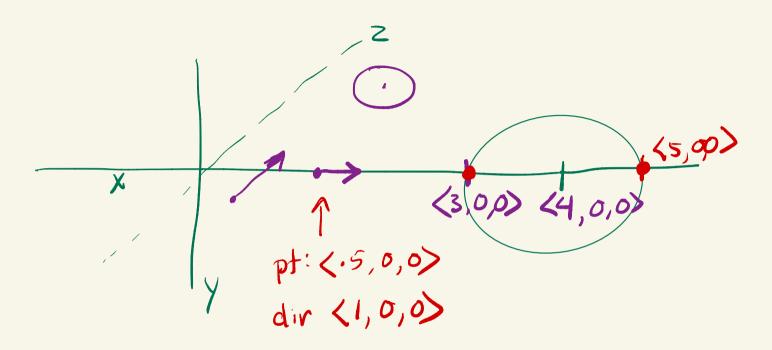
or short-circuits?

A	B	A or B
T		T
T		T
F	T	T
F	F	F

Assignment #3

Ray

does the Ray
intersect
Sphere?

→ @ which
point

80
_____

85
_____

60
_____

z

x

y

pt: ⟨·5, 0, 0⟩

dir ⟨1, 0, 0⟩

⟨3, 0, 0⟩   ⟨4, 0, 0⟩   ⟨5, 0, 0⟩

$$L = [\underset{0}{1}, \underset{1}{9}, \underset{2}{3}]$$

| 1 | 9 | 3 |

$+ 1$

| 2 | 10 | 4 |

map

- map values in the original list to values in new list by performing an operation on each

L = [1, 9, 3]   list comprehension

result = [x + 1 for x in L]

[2, 10, 4]
             ↑
          calculate
           result
           based   x ⇒ 1   x ⇒ 9   x ⇒ 3
            on   ↓ x+1   ↓ x+1   ↓ x+1
          element   2   10   4
           named

↑ call those elements x
↑ iterate over elements of L

ans = 7 + 9
   ↘ 16