Week 5
Monday 9/28/2025

Selection

A. Boolean values & expressions
1. Boolean values
{ True / False } (not string)
2. Boolean expressions
· To evaluate to a boolean value
e.g. print(5==6)
↳ False
· ==: comparison operators
· a=7 is legal but 7=a is not
B. Logical operators
1) There are 3 logical operators { and / or / not }
e.g. x = 5
print(x > 0 and x < 10)
↳ True
· Use truth tables:

a	b	a ∧ b
T	T	T
T	F	F
F	T	F
F	F	F

⁉ n == 5 or n == 6 [not n == 5 or 6]
2) Logical opposites

==	!=
!=	==
<	>=
<=	>
>	<=
>=	<

C. Precedence of operators

Level	Operators
7	**
6	*, /, //, %
5	+, −
4	==, !=, <=, >=, <, >
3	not
2	and
1	or

D. Conditional execution: binary selection
· Selection statement (conditional)
→ If:
else:
E. Omitting the else clause: unary selection
e.g. x = 10
if x < 0:
print("...")
print("ABC")
↳ ABC
F. Nested conditionals
e.g. if x < y:
print("...")
else:
if x > y:
print("...")
else
print("...")
G. Chained conditionals
e.g. if x < y:
print("...")
elif x > y:
print("...")
else:
print("...")

tt. Bolean functions
e.g. def isDivisible(x, y):
if x % y == 0:
result = True
else:
result = False
return result
print(isDivisible(10,5))