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| Python Quick Reference Guide - CSC 1700Basic Data Types x = 10 # int y = 3.14 # float s = 'Hello' # string (or s = "Hello") flag = True # bool (True or False)  Variable naming rules  a) Must begin with a letter (A–Z, a–z) or an underscore (\_).  b) Cannot start with a digit.  c) May contain letters, digits, and underscores only (no spaces or symbols).  d) Case-sensitive: age, Age, and AGE are three different variables.  e) Cannot use Python keywords (e.g., class, if, for) as names.  Input  name = input('Enter name: ') age = int(input('Enter age: ')) rate = float(input('Enter rate: ')) Formatted Output print(f'Hello {name}, you are {age}') print('Today is Monday', end='...') pi = 3.1415926536 print(f'Value of pi: {pi:.2f}')  Math Operators  + - \* / // % \*\* 5 // 2 → 2 5 % 2 → 1 2 \*\* 3 → 8 Conditional Operators == != > < >= <= 5 > 3 → True 5 < 3 → False Logical Operators and, or, not True and False → False True or False → True  Concatenation first = 'John' last = 'Smith' name = last + ', ' + first  Explicit Type Conversion pi = '3.1416'  value\_f = float(pi)  value\_i = int(value\_f) value\_s = str(value\_f) | Operator Precedence **1. ()  2. \*\*  3. \* / // %  4. + - 5. < <= > >= == !=  6. not  7. and  8. or**  2 + 3 \* 4 → 14 (2 + 3) \* 4.0 → 20.0 # implicit conv to float 4 \*\* 2 + 6 / 3 → 18.0 # implicit conv to float If-Elif-Elseif x > 10:  print('Greater than 10') if x > 10:  print('Greater than 10') else:  print('Less than or equal to 10') if x > 10:  print('Greater than 10') elif x == 10:  print('Equal to 10') else:  print('Less than 10')  Nested Conditionals if x > 10:  print('Greater than 10') else:  if x == 10:  print('Equal to 10')  else:  print('Less than 10')  Numeric Ranges Expressions (logical operators and chained comparison) Within range expression (age between 13 and 19 inclusive)  age >= 13 and age <= 19  13 <= age <= 19  Out range expression (age between 13 and 19 inclusive) using logical operators  age < 13 or age > 19  not (age >= 13 and age <= 19)  not (13 <= age <= 19) |