Week 1 Coding Challenge

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```
2 + 2
```

```
4
```

```
1.5 + 2.25
```

```
3.75
```

```
4 - 2
```

```
2
```

```
100 - .5
```

```
99.5
```

```
0 - 2
```

```
-2
```

```
2 * 3
```

```
6
```

```
1 / 2
```

```
0.5
```

```
4 / 2
```

```
2.0
```

```
type(1)
```

```
int
```

```
type(1.0)
```

```
float
```

```
type(4)
```

```
int
```

```
x = 4
```

```
x
```

```
4
```

```
type(x)
```

```
int
```

```
2 * x
```

```
8
```

```
4
```

4

```
x = 4
```

```
x = 4
```

```
x
```

4

```
x = 5
```

```
x
```

5

```
x = 3
```

```
y = 4
```

```
x * y
```

12

```
x * x
```

9

```
2 * x - 1 * y
```

2

```
(2 * x) - (1 * y)
```

```
2
```

```
x = 4
```

```
x=4
```

```
(2 * x) - (1 * y)
```

```
4
```

```
(2*x)-(1*y)
```

```
4
```

```
"Hello"
```

```
'Hello'
```

```
"Python, I'm your #1 fan!"
```

```
"Python, I'm your #1 fan!"
```

```
type("Hello")
```

```
str
```

```
type(1)
```

```
int
```

```
type("1")
```

```
str
```

```
"Hello" + "World"
```

```
'HelloWorld'
```

```
name = "Jessica"
"Hello" + name
```

```
'HelloJessica'
```

```
"Hello" + 1
```

```
TypeError: can only concatenate str (not "int") to str
```

```
"Hello" + "World"
```

```
'HelloWorld'
```

```
"Hello" + 1
```

```
TypeError: can only concatenate str (not "int") to str
```

```
"Hello" + str(1)
```

```
'Hello1'
```

```
len("Hello")
```

```
5
```

```
len("")
```

```
0
```

```
fish = "humuhumunukunukuapua'a"
```

```
name_length = len(fish)
```

```
fish + " is a Hawaiian fish whose name is " + str(name_length) + " characters long."
```

```
"humuhumunukunukuapua'a is a Hawaiian fish whose name is 22 characters long."
```

```
'Hello'
```

```
'Hello'
```

```
"Hello"
```

```
'Hello'
```

```
'I'm a happy camper'
```

```
SyntaxError: unterminated string literal (detected at line 1) (2118118592.py, line 1)
```

```
"I'm a happy camper"
```

```
"I'm a happy camper"
```

```
"A" * 40
```

```
'AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA'
```

```
"ABC" * 12
```

```
'ABCABCABCABCABCABCABCABCABCABCABC'
```

```
h = "Happy"
b = "Birthday"
(h + b) * 10
```

```
'HappyBirthdayHappyBirthdayHappyBirthdayHappyBirthdayHappyBirthdayHappyBirthdayHappyBirthdayH
```

```
total = 1.5 - 1 / 2
total
print(type(total))
```

```
<class 'float'>
```

```
a = "quick"
b = "brown"
c = "fox jumps over the lazy dog"
print("The " + a * 3 + " " + b * 3 + " " + c)
```

```
The quickquickquick brownbrownbrown fox jumps over the lazy dog
```

```
if 6 > 5:
    print("Six is greater than five!")
```

```
Six is greater than five!
```

```
if 0 > 2:
    print("Zero is greater than two!")
```

```
if "banana" in "bananarama":
    print("I miss the 80s.")
```

```
I miss the 80s.
```

```
sister_age = 15
brother_age = 12
if sister_age > brother_age:
    print("sister is older")
else:
    print("brother is older")
```

```
sister is older
```

```
1 > 0 and 1 < 2
```

```
True
```

```
1 < 2 and "x" in "abc"
```

```
False
```

```
"a" in "hello" or "e" in "hello"
```

```
True
```

```
1 <= 0 or "a" not in "abc"
```

```
False
```

```
temperature = 32
if temperature > 60 and temperature < 75:
    print("It's nice and cozy in here!")
else:
    print("Too extreme for me.")
```

```
Too extreme for me.
```

```
hour = 11
if hour < 7 or hour > 23:
    print("Go away!")
    print("I'm sleeping!")
else:
    print("Welcome to the cheese shop!")
    print("Can I interest you in some choice gouda?")
```

```
Welcome to the cheese shop!
Can I interest you in some choice gouda?
```

```
sister_age = 15
brother_age = 12
if sister_age > brother_age:
    print("sister is older")
elif sister_age == brother_age:
    print("sister and brother are the same age")
else:
    print("brother is older")
```

```
sister is older
```

```
color = "orange"
if color == "green" or color == "red":
    print("Christmas color!")
elif color == "black" or color == "orange":
    print("Halloween color!")
elif color == "pink":
    print("Valentine's Day color!")
```

```
Halloween color!
```

```
True
type(True)
False
type(False)
```

```
bool
```

```
0 == 0
```

```
True
```

```
0 == 1
```

```
False
```

```
"a" != "a"
```

```
False
```

```
"a" != "A"
```

```
True
```

```
1 > 0
```

```
True
```

```
2 >= 3
```

```
False
```

```
-1 < 0
```

```
True
```

```
.5 <= 1
```

```
True
```

```
"H" in "Hello"
```

```
True
```

```
"X" in "Hello"
```

```
False
```

```
"a" not in "abcde"
```

```
False
```

```
"Perl" not in "Python Workshop"
```

```
True
```