## Section 1

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1 Basic Terminology

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```
print(2+2)
```

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The above is an expression consisting of operators (such as the +) and values (such as the 2). Expressions always evaluate down to a single value.

```
print(2)
print(5-3)
print(3*7)
print(22/7)
2
2
2
3.142857142857143
```

The order of operations follow PEMDAS, so we can use parentheses in order to show what we really want.

```
print(2+3*6)
print((2+3)*6)
20
30
```

We can get errors when we mess things up

```
print(5+)
```

We can have strings and they can also be concatenated or replicated.

```
print("Hello World")
print("Alice" + "Bob")
print("Alice"*3)
print("Hello" + "!"*10)
Hello World
AliceBob
AliceAliceAlice
Hello!!!!!!!!!
```

Python can store values inside of variables. Usually it is smart to name variables that describe the values that they contain. Variables can also be overwritten easily.

```
spam=42
print(spam)
spam="Hello"
print(spam)
print(spam + " World")
42
Hello
Hello World
```

Variables can also be set to different expressions. The expression will be evaluated and then that value will be set to the variable.

```
spam=2+2
print(spam)
spam=10
print(spam)
spam=spam+1
print(spam)
4
10
11
```