

### Addition

string + string	combine together
string + number	crash
number + number	math - addition

### Even, Odd number

```

even = 0
odd = 0
while True:
user_num = int(input("Enter the number :"))
if user_num >= 0:
if user_num % 2 == 0:
even = even + 1
else:
odd = odd + 1
else:
print ("Even number :", even)
print ("Odd number :", odd)
break

```

### Functions

print()	displays information on the screen
input()	receives information from the user
int()	converts a value to an integer

### Math Operations

==	equal to	9 == 9
!=	not equal to	55 != 2
+	addition	9 + 3 = 14
-	minus	5 - 1 = 4
*	multiply	5 * 5 = 25
/	divide	4 / 2 = 2
%	remainder	3 % 2 = 1
**	power	2 ** 2 = 4
<	less than	1 < 2
>	more than	2 > 1
<=	less than equal to	2 <= 3
>=	more than equal to	3 >= 2
//	divide by (no decimal point)	3/300 = 100

### Vocabulary

variable	holds a value & can be changed
string	a list of characters such as numbers, letters, symbols.

### Addition

```

string + string = Combine together
string + number = CRASH!
number + number = Addition (Math)

```

### code

```

print (name.upper())

print (name.lower())

print (name.capitalize())

print (name.title())

```

### Convert integer to binary

```

integer = input("Enter a number:")
integer = int(integer)
remainder = integer
binary = ""
while integer != 0 :
remainder = integer % 2
integer = int(integer / 2)
remainderstr = str(remainder)

```

### Reverse Word

```

while True:
word = input("Please enter a word")
index = 0
reverse = ''
while int(index) < len(word):
reverse = word[index] + (reverse)
index = int(index) + 1
print ("Reverse: ", reverse)

```

### Multiplication & Exponents

string *	combine that string multiple times
number *	math - multiply
number	
string * string	crash
string ** string	crash

### Multiplication & Exponents (cont)

number ** number	math- exponents
string ** number	crash

### naming convention

Rules for giving names

- letters
  - numbers (Can't be the first letter)
  - underscore \_
- Valid
- \_mystr
  - my3
  - Hello\_there
- Invalid name
- 3my="hi" -- cannot start with number
  - firstname ="hi"
  - = first-name