| Function |  |
| :--- | :--- |
| int() | Change number to be <br> number integer |
| float() | Change number to be <br> decimal number |
| str() | A list of number, letter and <br> symbols |
| print() | Show information that you <br> want on the screen |
| len() | The length of the string |
| \# | Comment, no effect |
| import random + | pick random item in the list |
| random.choice |  |

```
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)
```

Sort word per line
mystr $=$ "Hello"
letter_num $=0$
while letter_num < len(mystr):
print (mystr[letter_num])
letter_num $=$ letter_num +1
H
e
I
I
0

## By Jirat

cheatography.com/jirat/

```
Circle area
" ""
Python Intro Assignment #2
name
student number
" " "
#Ask the user for a radius of a
circle
user_radius = input("What is a
radius of a circle?")
#Convert the given radius to a
floating point
radius = float(user_radius)
#Make a variable called pi
pi = float(3.1415)
#Calculate the area of the circle
using exponents
area = pi(radius*2)
#Display the area of the circle to
the user
print ("The area of the circle is",
area)
```

| Addition |  |
| :--- | :--- |
| string + string | Combine together |
| string + number | Crash |
| number + number | Math - addition |


| Multiplication and Exponents |  |
| :--- | :--- |
| string * number | Combine that string |
| string * string | Crash |
| number * number | Math - multiply |
| string ** string | Crash |
| number ** number | Math - exponent |
| string ** number | Crash |

Published 9th February, 2016.
Last updated 17th February, 2016.
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## Convert to Binary

user_number = ' '
while user_number != '0':
user_number = input("Enter a
number to convert to binary")
number = int(user_number)
binary_string = ''
while (number > 0):
remainder $=$ number\%2
binary_string =
str(remainder) + binary_string
number $=$ number//2
print ("Binary string
is",binary_string)

## Decimal to Binary

user_number = ' '
while user_number != '0':
user_number = input("Enter a number to convert to binary")
number $=$ int(float(user_number))
binary_string = "
while (number $>0$ ):
remainder $=$ number\%2
binary_string $=\operatorname{str}($ remainder $)+$ binary_string number $=$ number//2
print ("Binary string is",binary_string)

## Print name

```
name \(=\) "jirat PRASERTMAK"
print (name.upper()) --.-.-.-.--->
JIRAT PRASERTMAK
print (name.lower())
jirat prasertmak
print (name.capitalize())
---> Jirat prasertmak
print (name.title()) --.-.-.-.--->
Jirat Prasertmak
```


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| Math |  |
| :--- | :--- |
| $==$ | equal to |
| != | no equal to |
| $<$ | less than |
| $>$ | more than |
| $<=$ | less than or equal |
| $>=$ | more than or equal |
| $\%$ | Modulo, find the remainder |


| Vocabulary |  |
| :--- | :--- |
| variable | Hold a value and can be <br> changed |
| syntax | Grammar or structure of <br> language |
| modulo | Find the remainder |
| boolean | True or false |
| floating <br> point | The number in decimal |

## Countdown Machine

user_number $=$ input("What number do you want to count down? ")
number $=$ int(user_name)
countdown-string $=1 '$
while number $>0$
countdown_number $=$
countdown_string + str(number) + " "
number $=$ number -1
\#print (number)
print (countdown_string)

```
Guess word game
import random
#Create a list
guesslist = ['vesicle',
'lysosome', 'chloroplast',
'ribosome', 'vacuole']
chance = 3
score = 0
print (guesslist)
while chance != 0:
    random_item =
random.choice(guesslist)
    user_input = input("Please
guess a word: ")
    if user_input == random_item:
        print ("That's correct!")
        score = score + 100
        print ("Score:", score)
    else:
        if user_input not in
guesslist:
            print ("Sorry, that
isn't even in the list!")
            chance = chance - 1
            print ("Chance
Remaining:", chance)
        else:
            print ("Sorry, wrong
Choice!")
        chance = chance - 1
        print ("Chance
Remaining:", chance)
if chance == 0:
    print ("The word was",
random_item)
    print ("The score is", score)
```

Published 9th February, 2016.
Last updated 17th February, 2016.
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