Python Numbers Toolbox

Type	Example	Convert to:
Int (Integer)	5, 6, 7	int()
Float	5.67, 8.0, 9.001	float()

Special Operations

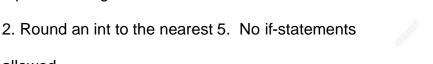| Operator	Examples	Notes
// Div or Integer division	3 // 2 = 1	We will divide and remove the decimal part
% Mod or Modulus	7 % 2 = 1 4 % 2 = 0	We divide and get only the remainder
** Exponents	3 ** 3 = 3 * 3 * 3 = 27	

Useful Functions

Function	Result	Notes
abs(-4)	4	Convert number into positive
abs(4)	4	
round(54.5)	55.0	If the input is a float then the result is also a float
import math math.floor(6.2)	6.0	Floor will round your number down
import math math.floor(6.9)	6.0	
import math math.ceil(6.2)	7.0	
import math		

`math.sqrt(16)`		

Number Exercises - No if-statements allowed

1. Your task is to find the nearest square number, of a positive integer n.

2. Round an int to the nearest 5. No if-statements allowed.

3. Given an int, print out X's in rows of 5, with any leftover on the last row. Example:

>17

    X X X X X

     X X X X X

    X X X X X

     X X

4. There are two teams, Team 4 and Team 7. If it is team 4's turn, switch to team 7. If it is team 7's turn, switch to team 4. (NO IF STATEMENTS)

Example:

Who's turn is it?

>4

It is team 7's turn.

4. Determine if an integer number is prime.

5. Convert a string in binary to a decimal int (no special functions allowed!)

6. Convert a number in decimal to a binary string (no special functions allowed!)

7. Determine the GCD (greatest common

divisor) between two numbers