1) Print statement print("Hello, World!") Hello, World! 2) If else statement In [10]: n=int(input()) **if** n**%2**!=0: print("Weird") **if** n>=2 **and** n<=5: print("Not Weird") **elif** n>=6 **and** n<=20: print("Weird") elif n>20: print("Not Weird") 8 Weird 3) Arithmetic operations In [11]: a = int(input()) b = int(input()) print(a+b) print(a-b) print(a*b) 9 5 14 4 4) Division of int and float a = int(input()) b = int(input()) print(a//b) print(a/b) 55 5 11 11.0 5) Loops In [12]: n = int(input()) for i in range(n): print(i*i) 5 0 9 16 6) Write a function In [15]: def is_leap(year): leap = False **if** (year%4==0) and (year%100!=0 or year%400==0): leap = True return leap year = int(input()) print(is_leap(year)) 1996 True 7) Print function In [16]: n = int(input()) for i in range(1,n+1): print(i,end='') 3 123 8) Nested list n=int(input()) res=[] grade=[] for i in range(n): name=input() mark=float(input()) res.append([name, mark]) grade.append(mark) grade=sorted(set(grade)) m=grade[1] name=[] for val in res: **if** m==val[1]: name.append(val[0]) name.sort() for nm in name: print(nm) 5 Harry 37.21 Barry 37.21 Tina 37.2 Akriti 41 Harsh 39 Barry 9) List comparsation In [17]: x = int(input()) y = int(input()) z = int(input()) n = int(input()) res=[[i,j,k] for i in range(x+1) for j in range(y+1) for k in range(z+1) if i+j+k!=n] print(res) 2 2 2 2 [[0, 0, 0], [0, 0, 1], [0, 1, 0], [0, 1, 2], [0, 2, 1], [0, 2, 2], [1, 0, 0], [1, 0, 2], [1, 1, 1], [1, 1, 2], [1, 2, 0], [1, 2, 1], [1, 2, 2], [2, 0, 1], [2, 0, 2], [2, 1, 0], 1, 1], [2, 1, 2], [2, 2, 0], [2, 2, 1], [2, 2, 2]] 10) Find the runner-up score In [18]: n = int(input()) arr = list(map(int, input().split())) arr.sort() print(arr[(arr.index(max(arr)))-1]) 2 3 6 6 5 11) Find the percentage In [20]: n = int(input()) student_marks = {} for _ in range(n): name, *line = input().split() scores = list(map(float, line)) student_marks[name] = scores query_name = input() marks=student_marks[query_name] print(format(sum(marks)/3, '.2f')) Harsh 25 26.5 28 Anurag 26 28 30 Harsh 26.50 12) List In [7]: list=[] n=int(input()) for i in range(n): cmd=input().split() if cmd[0]=='insert': list.insert(int(cmd[1]),int(cmd[2])) elif cmd[0]=='append': list.append(int(cmd[1])) elif cmd[0]=='remove': list.remove(int(cmd[1])) elif cmd[0]=='sort': list.sort() elif cmd[0]=='pop': list.pop() elif cmd[0]=='print': print(list) else: list.reverse() 12 insert 0 5 insert 1 10 insert 2 6 print [5, 10, 6] remove 6 append 9 append 1 sort print [1, 5, 9, 10] pop reverse print [9, 5, 1] 13) Tuple In [22]: n=int(input()) t=tuple(map(int,input().split())) print(hash(t)) 2 1 2 -3550055125485641917 14) Swap case In [11]: def swap_case(s): for c in s: if c.isupper(): c=c.lower() c=c.upper() x**+="".**join(c) return x s = input() result = swap_case(s) print(result) HackerRank.com presents "Pythonist 2". hACKERrANK.COM PRESENTS "pYTHONIST 2". 15) string split and join In [12]: def split_and_join(line): # write your code here a=line.split() x="-".join(a) return x line = input() result = split_and_join(line) print(result) this is a string this-is-a-string 16) Whats in your name In [13]: def print_full_name(a,b): print("Hello "+a+" "+b+"!"+" You just delved into python.") first_name = input() last_name = input() print_full_name(first_name, last_name) Ross Taylor Hello Ross Taylor! You just delved into python. 17) mutations def mutate_string(string, position, characrer): s=list(string) s[position]=character return ''.join(s) s = input() i, c = input().split() s_new = mutate_string(s, int(i), c) print(s_new) abracadabra 18) find a string def count_substring(string, sub_string): l=len(sub_string) for i in range(len(string)): s=string[i:i+l] if s==sub_string: c+=1 **return** c string = input().strip() sub_string = input().strip() count = count_substring(string, sub_string) print(count) ABCDCDC CDC 19) String Validators s = input() print(any([i.isalnum() for i in s])) print(any([i.isalpha() for i in s])) print(any([i.isdigit() for i in s])) print(any([i.islower() for i in s])) print(any([i.isupper() for i in s])) qa2 True True True True False 20) Text Alignment In [4]: # Enter your code here. Read input from STDIN. Print output to STDOUT thickness = int(input()) c = 'H'#upper cone for i in range(thickness): print((c*i).rjust(thickness-1)+c+(c*i).ljust(thickness-1)) #two top parallel piller print((c*thickness).center(thickness*2)+(c*thickness).center(thickness*6)) #middle part for i in range((thickness+1)//2): print((c*thickness*5).center(thickness*6)) #two bottom parallel piller for i in range(thickness+1): print((c*thickness).center(thickness*2)+(c*thickness).center(thickness*6)) for i in range(thickness): print(((c*(thickness-i-1)).rjust(thickness)+c+(c*(thickness-i-1)).ljust(thickness)).rjust(thickness*6)) 5 HHHннннн нннннн нннннннн HHHHHHHHHH HHHHH HHHHH ННННН ННННН ННННН ННННН ННННН ННННН ннинининининининининин ннининининининининини ннининининининининини HHHHH HHHHH HHHHH ННННН ннннн ННННН ННННН ННННН HHHHH ННННН ННННН ННННН нининини нннннн HHHHH HHH 21) textwrap import textwrap def wrap(string, max_width): return textwrap.fill(string, max_width) string, max_width = input(), int(input()) result = wrap(string, max_width) print(result) ABCDEFGHIJKLIMNOQRSTUVWXYZ 4 ABCD EFGH IJKL IMNO QRST UVWX 22) Designer Door mat # Enter your code here. Read input from STDIN. Print output to STDOUT n, m=map(int,input().split()) s1='.|.' s2='WELCOME' #upper part for i in range(n//2): print((s1*((i*2)+1)).center(m, '-')) # center part print(s2.center(m, '-')) #lower part for i in range(n//2-1, -1, -1): print((s1*((i*2)+1)).center(m, '-')) 9 27 -----.|.-----------.|..|..|.--------------.|..|..|..|..|..|.. ------WELCOME--------.|..|..|..|..|..|.. -----------.|..|..|.------23) String Formatting def print_formatted(number): # your code goes here w=len((str(bin(number)))[2:]) for i in range(1, number+1): print(str(i).rjust(w, ''), oct(i)[2:].rjust(w, ''), hex(i)[2:].upper().rjust(w, ''), bin(i)[2:].rjust(w, ''))n = int(input()) print_formatted(n) 17 1 101 110 111 10 8 1000 11 9 1001 10 12 A 1010 B 1011 11 13 C 1100 12 14 13 15 D 1101 14 16 E 1110 F 1111 15 17 16 10 10000 20 21 11 10001 24) Alphabet Rangoli def print_rangoli(size): # your code goes here 11=list(map(chr, range(97, 123))) x=11[n-1::-1]+11[1:n]m=len('-'.join(x)) for i in range(1,n): print('-'.join(l1[n-1:n-i:-1]+l1[n-i:n]).center(m,'-')) #lower part for i in range(n, 0, -1): print('-'.join(l1[n-1:n-i:-1]+l1[n-i:n]).center(m,'-')) n = int(input()) print_rangoli(n) 5 ----e--------e-d-e--------e-d-c-d-e------e-d-c-b-c-d-e-e-d-c-b-a-b-c-d-e --e-d-c-b-c-d-e------e-d-c-d-e--------e-d-e--------e----25) Capitalize! In [17]: import string def solve(s): return(string.capwords(s,' ')) s = input() result = solve(s) chris alan 26) 'The Minion Game' def minion_game(string): # your code goes here # The Minion Game in Python - Hacker Rank Solution START player1 = 0;player2 = 0;str_len = len(string) for i in range(str_len): if s[i] in "AEIOU": player1 += (str_len)-i else : player2 += (str_len)-i if player1 > player2: print("Kevin", player1) elif player1 < player2:</pre> print("Stuart", player2) elif player1 == player2: print("Draw") else : print("Draw") # The Minion Game in Python - Hacker Rank Solution END s = input() minion_game(s) BANANA Stuart 12 27) Merge the Tools! In [3]: def merge_the_tools(string, k): 1=[] for i in range(len(string)//k): 1.append(string[m:m+k]) m+=kfor v in 1: print(''.join(list(dict.fromkeys(list(v)).keys()))) string, k = input(), int(input()) merge_the_tools(string, k) AABCAAADA 3 AB CA 28) itertools.product() from itertools import product a=list(map(int,input().split())) b=list(map(int,input().split())) print(*list(product(a,b))) 1 2 (1, 3) (1, 4) (2, 3) (2, 4) 29) Collections.Counter() # Enter your code here. Read input from STDIN. Print output to STDOUT from collections import Counter no_of_shoes = int(input()) inventory=list(map(int,input().split())) size_availability = Counter(inventory) coustomers = int(input()) earning=0 for cust in range(coustomers): size, price = list(map(int,input().split())) if size_availability[size]: earning = earning+price size_availability[size] -=1 print(earning) 10 2 3 4 5 6 8 7 6 5 18 6 55 6 45 6 55 4 40 18 60 10 50 30) itertools.permutations() # Enter your code here. Read input from STDIN. Print output to STDOUT from itertools import permutations s,n = input().split() for i in list(permutations(sorted(s),int(n))): print("".join(i)) HACK 2 ACAHΑK CA CH CK HA HC HK KΑ KC KH 31) Polar Coordinates from cmath import polar print(*polar(complex(input())), sep = "\n") 1+2j 2.23606797749979 1.1071487177940904 32) Introduction to set def average(array): # your code goes here for i in set(array): sum=sum+i average=(sum/len(set(array))) return (average) n = int(input()) arr = list(map(int, input().split())) result = average(arr) print(result) 10 161 182 161 154 176 170 167 171 170 174 169.375 33) DefaultDict Tutorial from collections import defaultdict d = defaultdict(list) n, m=list(map(int,input().split())) for i in range(n): d[input()].append(i+1) for i in range(m): print(' '.join(map(str,d[input()]))or -1) 5 2 a 4 1 2 3 5 34) Calendar Module In [7]: # Enter your code here. Read input from STDIN. Print output to STDOUT import calendar day_list = ['MONDAY','TUESDAY','WEDNESDAY','THURSDAY','FRIDAY','SATURDAY','SUNDAY'] m,d,y = map(int,input().split())day_index = calendar.weekday(y,m,d) print(day_list[day_index]) 08 05 2015 WEDNESDAY 35) Exceptions for i in range(int(input())): a,b = input().split() try: print(int(a)//int(b)) except ZeroDivisionError as e: print("Error Code:",e) **except** ValueError **as** e: print("Error Code:",e) 3 1 0 Error Code: integer division or modulo by zero 2 \$ Error Code: invalid literal for int() with base 10: '\$' 3 1 3 36) collections namedtuple from collections import namedtuple n = int(input()) fields = input().split() total_marks = 0 for _ in range(n): students = namedtuple('student', fields) MARKS, CLASS, NAME, ID = input().split() student = students(MARKS, CLASS, NAME, ID) total_marks += int(student.MARKS) print('{:.2f}'.format(total_marks / n)) 5 CLASS ID MARKS NAME 92 Calum 1 82 Scott 94 Jason 55 Glenn 82 Fergus