1.

def time\_convert(tzone,time):

from datetime import tzinfo, timedelta, datetime

from pytz import timezone

from dateutil.parser import parse

time = parse(time)

time = time.replace(tzinfo=timezone('UTC'))

fmt = "%d/%m/%Y %H:%M"

if tzone == "EST":

print (time.astimezone(timezone('US/Eastern')).strftime(fmt))

elif tzone == "PST":

print (time.astimezone(timezone('US/Pacific')).strftime(fmt))

elif tzone == "MST":

print (time.astimezone(timezone('US/Mountain')).strftime(fmt))

elif tzone == "CST":

print (time.astimezone(timezone('US/Central')).strftime(fmt))

elif tzone == "CN":

print (time.astimezone(timezone('Asia/Shanghai')).strftime(fmt))

elif tzone == "BST":

print (time.astimezone(timezone('Europe/London')).strftime(fmt))

else:

print("error")

time\_convert("CN",'23/02/2020 10:00')

2.

def guess (P1,P2) :

import random

x=random.randint(1,10)

y=random.randint(1,10)

while x!=y :

if x > y:

print(P1+" "+"go lower")

x=random.randint(1,10)

elif y > x:

print(P1+" "+"go higher")

x=random.randint(1,10)

if x == y:

print("It's over"+" "+P2)

guess("James","Mark")

3.

def calculate\_age(dtob):

from datetime import date

from dateutil.parser import parse

dtob = parse(dtob)

today = date.today()

A = today.year - dtob.year - ((today.month, today.day) < (dtob.month, dtob.day))

print("you are" + " " + str(A) +" "+"years old")

calculate\_age('08/08/1995')

4.

def round\_reverse(x):

import math

x1= x-math.floor(x)

if x1>=0.5:

print(math.floor(x))

elif x1 < 0.5:

print(math.floor(x)+1)

round\_reverse(3.2)

round\_reverse(3.9)

5.

def salutation(forename, surname, age, martial, gender):

if gender == "female" and martial == "married":

print("Dear Mrs"+" "+forename+" "+surname)

elif gender == "female" and martial == "single" and age <= 18:

print("Dear Miss"+" "+forename+" "+surname)

elif gender == "female" and martial == "single":

print("Dear Ms"+" "+forename+" "+surname)

elif gender == "male" and age > 18:

print("Dear Mr"+" "+forename+" "+surname)

elif gender == "male" and age <= 18:

print("Dear Master"+" "+forename+" "+surname)

else:

print("error")

salutation('James','Pennington',68,'married','male')

salutation('Mark','Jennifer',19,'single','female')

8.

def timechange(time):

from datetime import datetime

x=datetime.strptime(time, "%H:%M")

print(x.strftime("%I:%M %p"))

timechange("23:00")

10.

def alphabet(A):

x = {'a':1,'b':2,'c':3,'d':4,'e':5,'f':6,'g':7,'h':8,'i':9,'j':10,'k':11,'l':12 ,'m':13,'n':14,'o':15,'p':16,'q':17,'r':18,'s':19,'t':20,'u':21,'v':22,'w':23,'x':24,'y':25,'z':26}

for key in A:

print(str(x.get(key)))

alphabet('abc')