1. Look at the following code. What does it return?

import calendar

from datetime import date

def monthdelta(date, delta):

    m, y = (date.month+delta) % 12, date.year + ((date.month)+delta-1) // 12

    if not m: m = 12

    d = min(date.day, calendar.monthrange(y, m)[1])

    return date.replace(day=d,month=m, year=y)

print(monthdelta(datetime.date(2019, 10, 23), 1))

print(monthdelta(datetime.date(2019, 10, 23), 5))

2. Look at the following code. What does it return?

from datetime import datetime, timedelta

now = datetime.now()

then = datetime(2019, 5, 23)

delta = now-then

print(delta)

3. Look at the following code. What does it return?

import datetime

dt = datetime.datetime.strptime("2019-04-15T08:27:18-0500", "%Y-%m-%dT%H:%M:%S%z")

print(dt)

4. Look at the following code. What does it return?

import random

while True:

  die1 = random.randint(1,6)

  die2 = random.randint(1,6)

  dieTotal = die1+die2

  if dieTotal > 6 and dieTotal < 10:

    break

  else:

    print(dieTotal)

5. Look at the following code. What does it return?

def funct(a, b):

  file = open(a)

  file2 = open(b,'a+')

  for line in file.readline():

    print(line)

    file2.write(line)

funct("python\_example3.txt","python\_example3\_rewrite.txt")

## inside python\_example3.txt

Hello world

## python\_example3\_rewrite.txt doesn’t exist

6. Look at the following code. What does it return?

import csv

with open("file.txt") as csvFILE:

  csv\_reader = csv.reader(csvFILE, delimiter='-')

  for row in csv\_reader:

    print(row[0])

  csv\_file.close()

## inside file.txt

Year-Day-Month

1992-02-02

1992-23-April,

1993-09-September,

7. Look at the following code. What does it return?

import pandas as pd

df1 = pd.DataFrame({

      'name': ['Olivia','Ruby','Emily','Grace','Jessica','Chloe',

               'Sophie','Lily','Amalia','Evie','Cecilia'],

      'department': ['EECS', 'BIO', 'EECS', 'EECS', 'EECS',

                     'BIO', 'BIO', 'HIST', 'HIST', 'BIO']

})

group = df.groupby(["department"])

print(group.first())

print(group.last())

print(group.first().reset\_index())