

Answer Submitted.

X

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NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » Python for Data Science (course)

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## Course outline

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☒ Python Setup  
Guide (unit?  
unit=16&lesso  
n=17)

☐ Practice:  
Week 0:  
Assignment 0

# Week 0: Assignment 0

Assignment not submitted

**Note : This assignment is only for practice purpose and it will not be counted towards the Final score.**

1) **Statistics and Probability** is the title of a book. If each letter was carved into a **1 point** block and dropped into a bag, what are the chances a person would draw either the letter A or I from the bag?

☒ 7 / 24☐ 3 / 24☐ 1 / 6☐ 1 / 4

Yes, the answer is correct.  
Score: 1

Accepted Answers:  
7 / 24

2) A manufacturing company is set up in two different locations. If the number of **1 point** employees in one location are 663, and the average monthly salary for their employees is \$13454, and the number of employees in the other location are 504, and the average monthly salary for their employees is \$17591. Find the combined arithmetic mean of the monthly salary?

☐ \$15804.33☐ \$15522.5☒ \$15240.67☐ None of these

Yes, the answer is correct.  
Score: 1

Accepted Answers:  
\$15240.67

(assessment?  
name=141)

Week 1 ()

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3) Given 2 samples, Sample 1 = [13.3, 2.4, 10, 13.3, 11] and Sample 2 = [8.5, 7.1, 12.6, 11.5, 10.3]. Find the sample which has a relatively greater spread of values from the mean? **1 point**

- ☒ Sample 1  
☐ Sample 2  
☐ Both the samples are equally spread  
☐ None of these

Yes, the answer is correct.

Score: 1

Accepted Answers:

Sample 1

4) Given below is tabular data on a test conducted recently to detect a new mutant of the coronavirus. **1 point**

Header	Tested Positive	Tested Negative
Infected	54	138
Not Infected	173	111

Find the number of people who have not actually contracted the virus yet have been tested positive?

- ☐ 138  
☐ 227  
☐ 284  
☒ 173

Yes, the answer is correct.

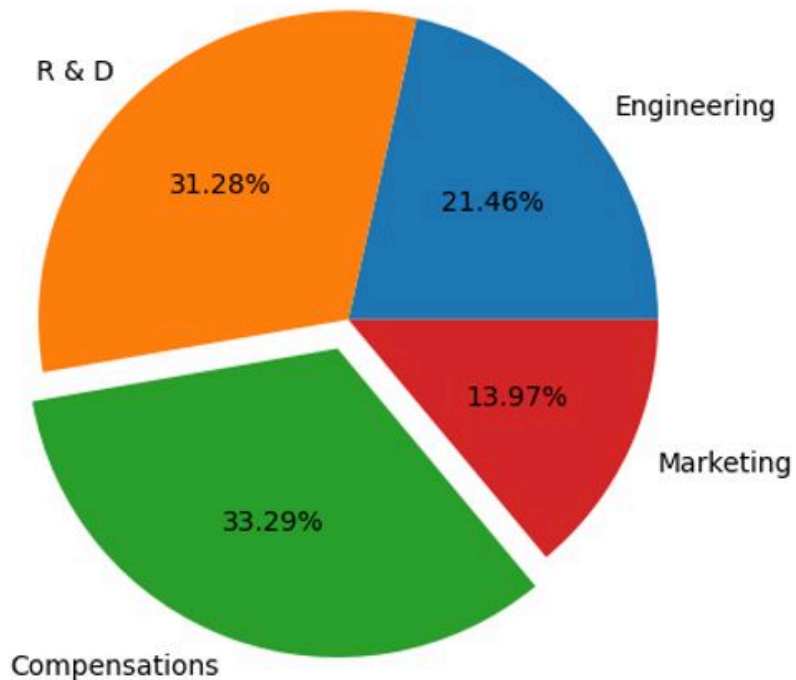
Score: 1

Accepted Answers:

173

5) Given a pie chart that indicates the expenditure of a manufacturing organization towards various activities, what is the ratio of expenditure for the R & D department to the Marketing department? **1 point**

### Pie chart of the company's expenditure



- ☐ 1 : 1.54  
☐ 1 : 0.65  
☒ 1 : 0.44  
☐ None of these

Yes, the answer is correct.

Score: 1

Accepted Answers:

1 : 0.44

6) Ben is the customer relation manager at a hotel. Recently, Ben has been receiving **1 point** customer feedback saying that the customers had to wait too long to be served by a customer service representative. Ben decides to note down the customer's waiting time in minutes. What kind of graph would be appropriate to check the frequency distributions of customers' waiting time?

- ☐ Line plot  
☐ Bar plot  
☒ Histogram  
☐ Scatter plot

Yes, the answer is correct.

Score: 1

Accepted Answers:

Histogram

7) 3 natural numbers are chosen at random. What is the probability that their product yields an odd number? **1 point**

- ☒ 1 / 8  
☐ 1 / 6  
☐ 2 / 3  
☐ 1 / 2

Yes, the answer is correct.

Score: 1

Accepted Answers:

1 / 8

8) The mean of the first  $n$  natural numbers is **1 point**

- ☐  $n!$   
☐  $(n / 2) + 1$   
☒  $(n + 1) / 2$   
☐  $n^2$

Yes, the answer is correct.

Score: 1

Accepted Answers:

$(n + 1) / 2$

9) 128 players are participating in a knockout tournament. How many games are required to decide the winner? **1 point**

**Note:** In a knockout tournament, whenever two people play, the loser is eliminated and the winner advances to the next round.

- ☐ 124  
☒ 127  
☐ 64  
☐ 130

Yes, the answer is correct.

Score: 1

Accepted Answers:

127

10) Given  $[x_1, x_2, x_3, \dots, x_n]$  are the possible values of a random variable  $X$ , and  $p_1, p_2, p_3, \dots, p_n$  be the corresponding probabilities to each value of the random variable. The mean is computed by the formula **1 point**

- ☐  $\sum_{i=1}^n p_i$   
☒  $\sum_{i=1}^n p_i x_i$   
☐  $\frac{\sum_{i=1}^n x_i}{n}$

☐ None of these

Yes, the answer is correct.

Score: 1

Accepted Answers:

$$\sum_{i=1}^n p_i x_i$$

**Check Answers and Submit**

Your score is: 10/10