# Week 01 Assignment

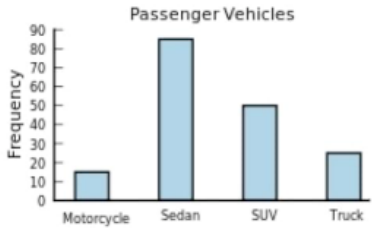
**Problem 1**

The following frequency distribution presents the frequency of passenger vehicles that pass through a certain intersection from 8:00 AM to 9:00 AM on a particular day.

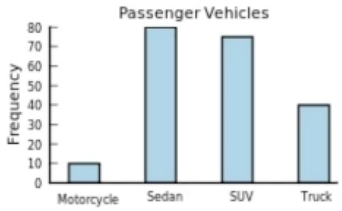
| Vehicle Type | Frequency |
|---|---|
| Motorcycle | 5 |
| Sedan | 95 |
| SUV | 65 |
| Truck | 30 |

Construct a frequency bar graph for the data.

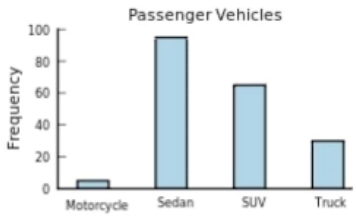
A)



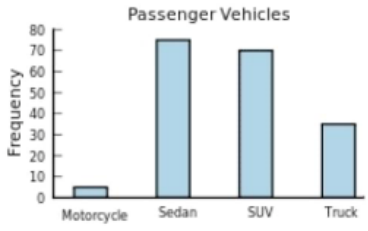

B)




C)



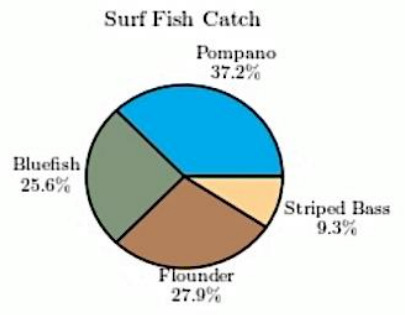

D)



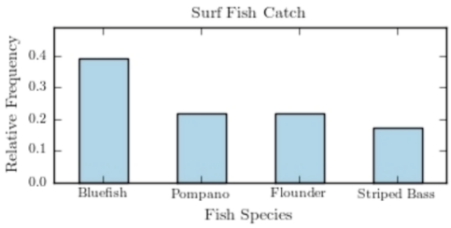

**Answer: C**

**Problem 2**.

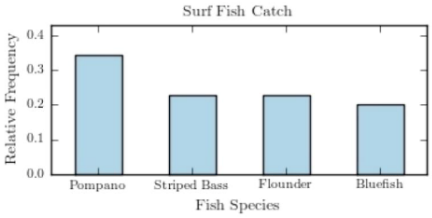
The following pie chart presents the percentages of fish caught in each of four ratings categories. Match this pie chart with its corresponding Pare-to chart.

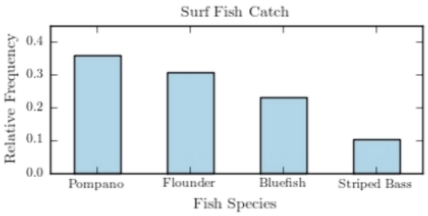



**A**

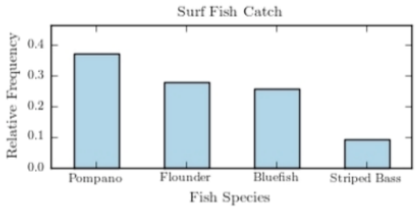



**B.**



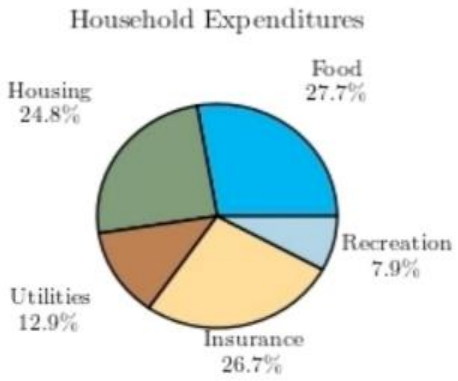

**D**




**Answer: D.**

**Problem 3**

Following is a pie chart that presents the percentages spent by a certain household on its five largest annual expenditures. What percentage of the money spent was spent on food, housing, and utilities?




A) 60.4%

B) 65.4%

C) 52.5%

D) 47%

**Answer: B**

**Problem 4.**

The following data shows prices of meal options at Bob's Burgers. Prices of Meal Options at Bob's Burgers

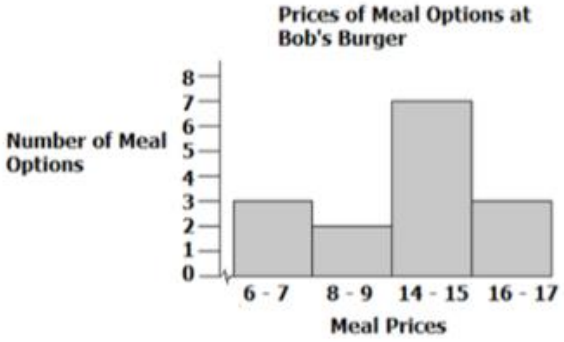
6 7 7 8 9 14 14 14 15 15 15 15 16 16 17

Which histogram correctly displays the information above?

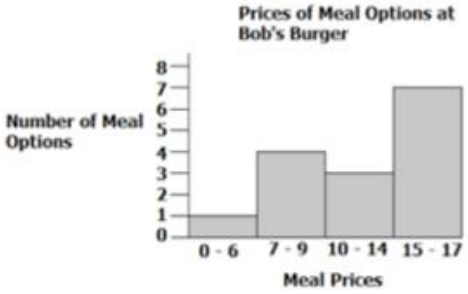
**A**


**B**


**C**




**D**

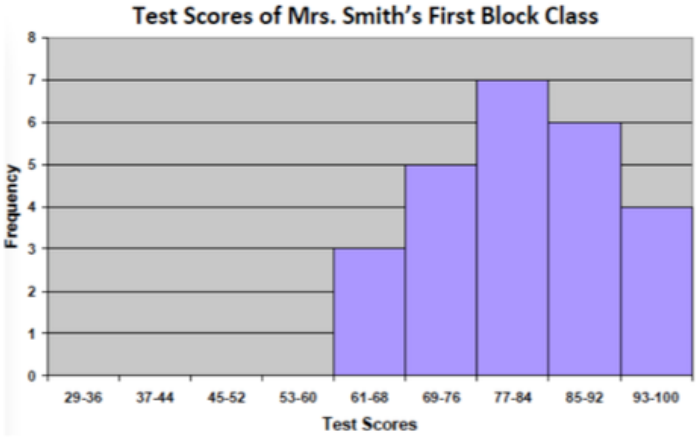



**Answer: B.**

**A** is incorrect because 0-5 does not have data values, **C** is incorrect because it skipped 9-14, **D** is incorrect because its widths are not equal.

**Problem 5.**

The histogram below shows the scores for Mrs. Smith's first block class at Red Rock Middle School.




If an 85 is the lowest score a student can earn to receive a B, how many students received at least a B?

A) 4

B) 6

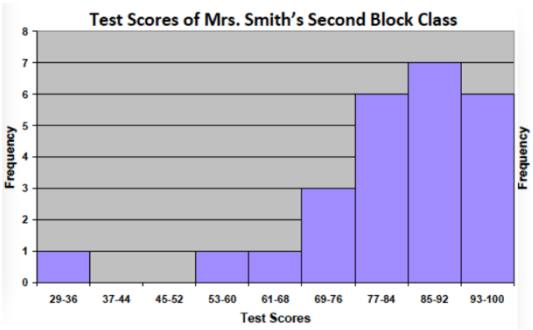
C) 10

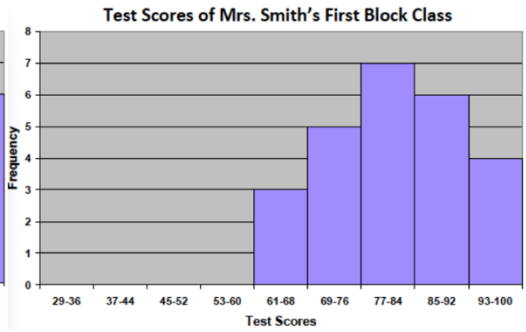
D) 15

**Answer: C**

**Problem 6.**

The histograms below show the scores for Mrs. Smith's first and second block classes at Red Rock Middle School.




Compare the histograms using the following information:

• 69 and above is passing

• 68 or below is failing

Which of the following statements is true?

A) The number of students that passed the test is the same in both classes.
B) More students passed in the first block than in the second block.
C) More students passed in the second block than in the first block.
D) Cannot be determined based on the graphs given.

**Answer: A**

## Problem 7

A study of 1106 college students asked about their preference for online resources. The following relative frequency distribution was determined as a result of the survey.

| Resource | Relative Frequency |
|---|---|
| Google or Google Scholar | 0.736 |
| Library database or website | 0.136 |
| Wikipedia or online encyclopedia | 0.094 |
| Other | 0.034 |

Of the 1106 students who participated in the survey, approximately how many chose Google or Google Scholar?

A. 34
B. 292
C. 736
D. 814

**Answer: D**

**Problem 8.**

A recent statistics exam yielded the following 25 scores. Construct a frequency table with the class limits shown below.

44 45 51 55 59 63 63 67 68 74 77 77 77 79 80 81 82 86 87 87 89 90 91 96 97

**A**

| Class Limits | Frequency |
|---|---|
| 41-50 | 2 |
| 51-60 | 2 |
| 61-70 | 5 |
| 71-80 | 6 |
| 81-90 | 7 |
| 91-100 | 3 |

B

| Class Limits | Frequency |
|---|---|
| 41-50 | 3 |
| 51-60 | 2 |
| 61-70 | 4 |
| 71-80 | 7 |
| 81-90 | 6 |
| 91-100 | 3 |

C

| Class Limits | Frequency |
|---|---|
| 41-50 | 2 |
| 51-60 | 3 |
| 61-70 | 4 |
| 71-80 | 6 |
| 81-90 | 7 |
| 91-100 | 3 |

D

| Class Limits | Frequency |
|---|---|
| 41-50 | 2 |
| 51-60 | 3 |
| 61-70 | 5 |
| 71-80 | 5 |
| 81-90 | 6 |
| 91-100 | 4 |

**Answer C.**

## Problem 9fi

The following table presents the purchase totals (in dollars) of a random sample of gasoline purchases at a convenience store. Construct a frequency distribution using a class width of 10 and using 0 as the lower-class limit for the first class.

| | | | | |
|---|---|---|---|---|
| 76.59 | 48.55 | 93.66 | 60.17 | 39.10 |
| 93.28 | 65.43 | 34.12 | 80.41 | 77.16 |
| 80.07 | 93.46 | 39.19 | 43.84 | 44.70 |
| 68.74 | 89.98 | 6.97 | 52.86 | 68.93 |

**A.**

Convenience Store Gas Purchases

| Amount (dollars) | Frequency |
|---|---|
| 0.00-9.99 | 1 |
| 10.00-19.99 | 0 |
| 20.00-29.99 | 0 |
| 30.00-39.99 | 3 |
| 40.00-49.99 | 3 |
| 50.00-59.99 | 1 |
| 60.00-69.99 | 4 |
| 70.00-79.99 | 2 |
| 80.00-89.99 | 4 |
| 90.00-99.99 | 2 |

**B.**

Convenience Store Gas Purchases

| Amount (dollars) | Frequency |
|---|---|
| 0.00-9.99 | 1 |
| 10.00-19.99 | 0 |
| 20.00-29.99 | 0 |
| 30.00-39.99 | 4 |
| 40.00-49.99 | 2 |
| 50.00-59.99 | 1 |
| 60.00-69.99 | 4 |
| 70.00-79.99 | 2 |
| 80.00-89.99 | 3 |
| 90.00-99.99 | 3 |

**C.**

Convenience Store Gas Purchases

| Amount (dollars) | Frequency |
|---|---|
| 0.00-9.99 | 1 |
| 10.00-19.99 | 0 |
| 20.00-29.99 | 0 |
| 30.00-39.99 | 3 |
| 40.00-49.99 | 3 |
| 50.00-59.99 | 1 |
| 60.00-69.99 | 4 |
| 70.00-79.99 | 2 |
| 80.00-89.99 | 3 |
| 90.00-99.99 | 3 |

**D.**

Convenience Store Gas Purchases

| Amount (dollars) | Frequency |
|---|---|
| 0.00-9.99 | 1 |
| 10.00-19.99 | 0 |
| 20.00-29.99 | 1 |
| 30.00-39.99 | 2 |
| 40.00-49.99 | 3 |
| 50.00-59.99 | 1 |
| 60.00-69.99 | 4 |
| 70.00-79.99 | 2 |
| 80.00-89.99 | 3 |
| 90.00-99.99 | 3 |

**Answer: C.**

## Problem 10

What do we call a part of a population used to describe the whole group?

a. Population
b. Sample
c. Statistic
d. Parameter

**Answer: B.**

**Problem 11.**

Elizabeth asks her friends how many brothers and/or sisters they have at home. What type of data is she collecting?

a. Numerical
b. Categorical
c. None of these answers are correct
d. Statistical

**Answer: A.**

# Summary of Week #1 Quiz

| cut.data.freq | Freq | midpts | rel.freq | cum.freq | rel.cum.freq |
|---|---|---|---|---|---|
| [3,4] | 1 | 3.50 | 0.02 | 1 | 0.02 |
| (4,5] | 0 | 4.50 | 0.00 | 1 | 0.02 |
| (5,6] | 1 | 5.50 | 0.02 | 2 | 0.05 |
| (6,7] | 2 | 6.50 | 0.05 | 4 | 0.10 |
| (7,8] | 8 | 7.50 | 0.19 | 12 | 0.29 |
| (8,9] | 20 | 8.50 | 0.48 | 32 | 0.76 |
| (9,10] | 10 | 9.50 | 0.24 | 42 | 1.00 |