

**Quiz Chapter 10**

Your answers: shade in the cell that best completes the statement or answers the question

	1	2	3	4	5
a					
b					
c					
d					
e					

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Here is a table of the undergraduate enrollment at a large state university, broken down by class:

<b>Class</b>	<b>Count of students</b>	<b>Percent of Students</b>
Freshman	8248	26.8%
Sophomore	8073	26.2%
Junior	7001	22.8%
Senior	6904	22.4%
Non-degree	535	1.7%
Total	30,761	100%

1. To make a correct graph of the distribution of students by class, you could use a

✓ a. bar graph.

✓ b. pie chart.

✗ c. line graph.

✗ d. Answers A, B, and C are correct.

Ⓔ Both A and B are correct.  answer

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2. A bar graph compares the size of the armed forces for China, North Korea, Russia, and the United States. To make the graph look nicer, the artist replaces each bar by a **proportionally correct picture** of a soldier that is enlarged or reduced to be as tall as the bar. This graph is misleading because

- ✗ a. it's the wrong kind of graph. Use a pie chart instead.
- ✗ b. it's the wrong kind of graph. Use a scatterplot instead.
- c. China's armed forces are twice as large as those of North Korea, but the choice of vertical scale can change this to half as large or four times as large. ???
- Best d. China's armed forces are twice as large as those of North Korea, but the area of China's soldier picture is four times as large as the North Korea picture.

3. A line graph shows that the price of fresh oranges **falls early in each year** when the orange harvest in Florida is ready, **then it rises late in the year** when oranges from that year's harvest begin to run out. This is an example of

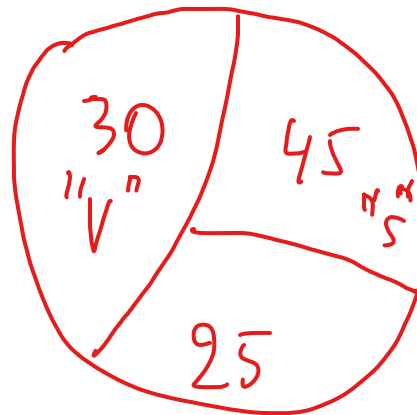
- a. trend in a line graph.
- b. erratic fluctuations in a line graph.
- c. seasonal variation in a line graph.
- d. confounding.

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A survey at a local university reveals that 30% of smartphone owners use Verizon, 45% use Sprint, and the remainder use a different company.

4. What percent of smartphone owners at the university do not use Verizon?

- a. 75%
- b. 30%
- ☒ c. 70%
- d. 55%
- e. 25%



$$45 + 25 = 70$$

5. Were the extinctions that occurred in the last ice age more frequent among species of animals with large body sizes? A researcher gathers data on the average body mass (in kilograms) of all species known to have existed at that time. These measurements are values of

- a. a categorical variable. ☒
- ☒ b. a quantitative variable. ☒
- c. an invalid variable. ☒
- d. a margin of error. ☒

quantitative variable is  
the one that takes  
numerical values

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

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**Answer Key**

1. e

2. d

3. c

4. c

5. b