✓ **Congratulations! You passed!**

Grade received 100%    **To pass** 80% or higher

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# \*Weekly challenge 5\*

**Latest Submission Grade 100%**

1. An online gardening magazine wants to understand why its subscriber numbers have been increasing. A data analyst discovers that significantly more people subscribe when the magazine has its annual 50%-off sale. This is an example of what?

**1 / 1 point**

◉ Analyzing customer buying behaviors

○ Analyzing the number of customers by calculating daily foot traffic

○ Analyzing social media engagement

○ Analyzing consumer preferences using artificial intelligence

✓ **Correct**
Data analysts help companies learn from historical data in order to make predictions. A sale's affect on subscription purchases is an example of customer buying behavior analysis.

2. A doctor's office discovers that patients are waiting 20 minutes longer for their appointments than in past years. In what ways could a data analyst help solve this problem? Select all that apply.

**1 / 1 point**

☑ Analyze the number of patients seen per day compared to past years.

✓ **Correct**
Analyzing appointment length, staffing numbers, and patient numbers are likely to provide useful insights to illustrate why this is happening and help solve this problem.

☑ Analyze the average length of an appointment this year compared to past years.

✓ **Correct**
Analyzing appointment length, staffing numbers, and patient numbers are likely to provide useful insights to illustrate why this is happening and help solve this problem.

☐ Analyze a recent change in the average rating for the doctor's office on social media.

☑ Analyze how many doctors and nurses are on staff at a given time compared to the number of patients with appointments.

✓ **Correct**
Analyzing appointment length, staffing numbers, and patient numbers are likely to provide useful insights to illustrate why this is happening and help solve this problem.

3. Fill in the blank: A problem is an obstacle to be solved, an issue is a topic to investigate, and a _____ is designed to discover information.

**1 / 1 point**

○ business task

◉ question

○ breakthrough

○ theme

✓ **Correct**
A problem is an obstacle or complication to be solved, whereas a question is designed to discover information. These two things are the foundation of business tasks.

4. Fill in the blank: A business task is described as the problem or _____ a data analyst answers for a business.

**1 / 1 point**

○ complaint

○ solution

○ comment

◉ question

✓ **Correct**
A business task is described as the problem or question a data analyst answers for a business.

**5.** Fill in the blank: Data-driven decision-making is described as using _____ to guide business strategy.

**1 / 1 point**

○ intuition

○ gut instinct

○ visualizations

◉ facts

✓ **Correct**
Data-driven decision-making is using facts to guide business strategy.

**6.** It's possible for conclusions drawn from data analysis to be both true and unfair.

**1 / 1 point**

◉ True

○ False

✓ **Correct**
Sometimes, a conclusion may be true, but it's unfair because it doesn't represent all groups or it ignores social context and other systemic factors.

**7.** A data analyst is analyzing fruit and vegetable sales at a grocery store. They're able to find data on everything except red onions. What's the best course of action?

**1 / 1 point**

○ Use the data on white onions instead, as they're both onion varieties.

○ Exclude all onion varieties from the analysis.

◉ Ask a teammate for help finding data on red onions.

○ Exclude red onions from the analysis.

✓ **Correct**
If a data analyst were to analyze all fruits and vegetables except for onions, the outcomes would not be fair because the data is not representative of all fruits and vegetables sold in grocery stores.

**8.** A large hotel chain sees about 500 customers per week. A data analyst working there is gathering data through customer satisfaction surveys. They are anxious to begin analysis, so they start analyzing the data as soon as they receive 50 survey responses. This is an example of what? Select all that apply.

**1 / 1 point**

☑ Failing to have a large enough sample size

✓ **Correct**
This is an example of failing to include diverse perspectives and failing to have a large enough sample size. The first 50 survey responses are unlikely to represent the general population and may produce biased results.

☑ Failing to include diverse perspectives in data collection

✓ **Correct**
This is an example of failing to include diverse perspectives and failing to have a large enough sample size. The first 50 survey responses are unlikely to represent the general population and may produce biased results.

☐ Failing to collect data anonymously

☐ Failing to reward customers for participating in the survey