



✓ **Congratulations! You passed!**

TO PASS 80% or higher

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Data Investigation Module Quiz

LATEST SUBMISSION GRADE

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1. Which of the following is the least valid statement when it comes to dashboards?

1 / 1 point

- ☐ A. Dashboards are an easy way to share summaries and findings
- ☐ B. Dashboards have interactive functionality that helps create a rich experience for the user
- ☐ C. Dashboards are generally used after several iterations of the AI workflow
- ☒ D. Dashboards are quick way to create portable simple plots
- ☐ E. Dashboards can be used to tell the story of investigative visualizations

✓ **Correct**

Correct!

2. A data scientist at Company Z sorted the survey responses by whether the respondents used Product 1 or Product 2 and then compiled their ages:

1 / 1 point

```
1 p1_ages = [25., 32., 20., 18., 28., 32., 31., 19., 34., 34., 23., 29., 17.,
2           23., 25., 31., 32., 29., 29., 24., 22., 28., 26., 24., 23.]
3
4 p2_ages = [20., 25., 27., 19., 22., 26., 24., 27., 24., 20., 25., 28., 18.,
5           19., 23., 28., 19., 19., 19., 25., 29., 26., 23., 23., 22.]
```

Of the hypothesis test discussed in these contents what one is the most appropriate for testing the following hypothesis?

There is no age difference, on average, between the users of product 1 and the users of product 2

- ☐ (A) A 1-sample t-test
- ☐ (B) A 2-sample t-test assuming equal variance
- ☐ (C) Z-Test with continuity correction
- ☒ (D) A 2-sample unequal variances t-test
- ☐ (E) Binomial Test

✓ **Correct**

Correct!

3. Suppose that on average 2.5% of visitors to your website sign up for your newsletter. In a recent week, 2701 visitors out of a total of 108879 signed up.

1 / 1 point

Using a binomial distribution. What is the probability that number of visitors who signed up is 2701 or fewer?

- ☐ A. 0.125
- ☒ B. 0.346
- ☐ C. 0.414
- ☐ D. 0.007
- ☐ E. 0.015

✓ **Correct**

Correct!

4. True/False. If there customer churn were quantified using a Poisson distribution, then a bootstrap could be used to quantify the uncertainty associated with the estimate.

1 / 1 point

- ☒ True
- ☐ False

✓ **Correct**

Correct!

5. Which of the following is *NOT* an example of a valid strategy to deal with the multiple comparisons problem?

1 / 1 point

- ☐ A. Benjamini/Hochberg correction based on False discovery Rates
- ☐ B. Create a null distribution using permutations to help provide context
- ☒ C. Perform all comparisons then only keep the single test that performs the best
- ☐ D. If appropriate use an alternative modeling framework like generalized linear models
- ☐ E. Bonferroni Correction

✓ **Correct**
Correct!