

If you are using a Student's t -distribution for the problem, you may assume that the underlying population is normally distributed. (In general, you must first prove that assumption, though.)

Q2. What is the test statistic? (If using the z distribution round your answers to two decimal places, and if using the t distribution round your answers to three decimal places.)

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Q4. Explain what the p -value means for this problem.

- If H_0 is false, then there is a chance equal to the p -value that the sample ratio is 35 out of 64 or less.
- If H_0 is true, then there is a chance equal to the p -value that the sample ratio is not 35 out of 64 or more.
- If H_0 is true, then there is a chance equal to the p -value that the sample ratio is 35 out of 64 or less.
- If H_0 is false, then there is a chance equal to the p -value that the sample ratio is not 35 out of 64 or more.



A normal distribution curve is shown with a light blue shaded area under the curve. The shaded area is labeled "95% C.I." in the center. The curve is symmetric and bell-shaped, with the shaded area representing the central 95% of the distribution.