Formulate the indicated conclusion in nontechnical terms. Be sure to address the original claim.

Carter Motor Company claims that its new sedan, the Libra, will average better than 21 miles per gallon in the city. Assuming that a hypothesis test of the claim has been conducted and that the conclusion is to reject the null hypothesis, state the conclusion in nontechnical terms.

A) There is sufficient evidence to support the claim that the mean is less than 21 miles per gallon.
B) There is sufficient evidence to support the claim that the mean is greater than 21 miles per gallon.
C) There is not sufficient evidence to support the claim that the mean is greater than 21 miles per gallon.
D) There is not sufficient evidence to support the claim that the mean is less than 21 miles per gallon.

Formulate the indicated conclusion in nontechnical terms. Be sure to address the original claim.

A cereal company claims that the mean weight of the cereal in its packets is at least 14 oz. Assuming that a hypothesis test of the claim has been conducted and that the conclusion is to reject the null hypothesis, state the conclusion in nontechnical terms.

A) There is not sufficient evidence to warrant rejection of the claim that the mean weight is less than 14 oz.
B) There is not sufficient evidence to warrant rejection of the claim that the mean weight is at least 14 oz.
C) There is sufficient evidence to warrant rejection of the claim that the mean weight is less than 14 oz.
D) There is sufficient evidence to warrant rejection of the claim that the mean weight is at least 14 oz.

Formulate the indicated conclusion in nontechnical terms. Be sure to address the original claim.

A psychologist claims that more than 56 percent of the population suffers from professional problems due to extreme shyness. Assuming that a hypothesis test of the claim has been conducted and that the conclusion is failure to reject the null hypothesis, state the conclusion in nontechnical terms.

A) There is sufficient evidence to support the claim that the true proportion is greater than 56 percent.
B) There is sufficient evidence to support the claim that the true proportion is less than 56 percent.
C) There is not sufficient evidence to support the claim that the true proportion is less than 56 percent.
D) There is not sufficient evidence to support the claim that the true proportion is greater than 56 percent.

Identify the null hypothesis, alternative hypothesis, test statistic, P-value, conclusion about the null hypothesis, and final conclusion that addresses the original claim.

A supplier of 3.5" disks claims that no more than 1% of the disks are defective. In a random sample of 600 disks, it is found that 3% are defective, but the supplier claims that this is only a sample fluctuation. At the 0.01 level of significance, test the supplier's claim that no more than 1% are defective.

Identify the null hypothesis, alternative hypothesis, test statistic, P-value, conclusion about the null hypothesis, and final conclusion that addresses the original claim.

A random sample of 100 pumpkins is obtained and the mean circumference is found to be 40.5 cm. Assuming that the population standard deviation is known to be 1.6 cm, use a 0.05 significance level to test the claim that the mean circumference of all pumpkins is equal to 39.9 cm.