Name:
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MATH 1342
Quiz 8.1
For each situation, write the Null and Alternative Hypothesis
(1) In the past, the mean running time for a certain type of flashlight battery has been 9 hours. The manufacturer has introduced a change in the production method and wants to perform a hypothesis test to determine whether the mean running time has changed as a result.

## $H_{0}$ :

$$
H_{a}:
$$

(2) A manufacturer claims that the mean amount of juice in its 16 ounce bottles is 16 ounces. A consumer advocacy group wants to perform a hypothesis test to determine whether the mean amount is actually less than this.

$$
H_{0}
$$

$$
H_{a}:
$$

(3) A psychologist has designed a test to measure stress levels in adults. She has determined that nationwide the mean score on her test is 27 . A hypothesis test is to be conducted to determine whether the mean score for trial lawyers exceeds the national mean score.

$$
H_{0}
$$

$H_{a}$ :

