

HYPOTHESIS TESTING QUIZ

Test, at the $\alpha = 0.05$ level, the following hypothesis. Write out each step as clearly as possible.

Obesity in pets is becoming a common problem in America, compromising the health and longevity of both dogs and cats. A new lighter formulation for a dog food is being tested for efficacy. A control group, consisting of 25 large-breed dogs, is being fed the old formulation. A test group, also consisting of 25 large-breed dogs, is being fed the lighter formulation. The following data on weight is collected:

Control: $\bar{x} = 150.7$ kg, $s = 22.7$ kg, $n = 25$

Test: $\bar{x} = 135.2$ kg, $s = 24.1$ kg, $n = 25$