

Name: \_\_\_\_\_  
MAT 222  
Spring 2019  
Quiz 10

*“Not much comes easy in this world,  
Sonny. If it does, it’s best to be suspicious  
of it. It’s probably not worth much.”*  
–Homer Hickam Sr., *Rocket Boys*

Suppose that you are planning an experiment to examine the conclusions of some recent studies on weight loss programs. You will examine diet, using low fat, low carb, and low sodium diets, and amount of exercise, using regular exercise and no exercise. There will be 10 subjects for each treatment group. Based on this scenario, answer the following questions:

**Problem 1:** The degrees of freedom for diet are . . .

- (a) \_\_\_\_\_ 1
- (b) \_\_\_\_\_ 2
- (c) \_\_\_\_\_ 3

**Problem 2:** The degrees of freedom for exercise are . . .

- (a) \_\_\_\_\_ 1
- (b) \_\_\_\_\_ 2
- (c) \_\_\_\_\_ 3

**Problem 3:** The degrees of freedom for the interaction are . . .

- (a) \_\_\_\_\_ 2
- (b) \_\_\_\_\_ 3
- (c) \_\_\_\_\_ 6

**Problem 4:** The degrees of freedom for the error are . . .

- (a) \_\_\_\_\_ 4
- (b) \_\_\_\_\_ 5
- (c) \_\_\_\_\_ 54

**Problem 5:** The degrees of freedom for the total are . . .

- (a) \_\_\_\_\_ 9
- (b) \_\_\_\_\_ 10
- (c) \_\_\_\_\_ 59