Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Due: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Activity 12-3**

1. \_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_

Null hypothesis (H0) for the main effect of exercise: \_\_\_\_\_\_\_\_.

Research hypothesis (H1) for the main effect of exercise: \_\_\_\_\_\_\_\_.

Null hypothesis (H0) for the main effect of meditation: \_\_\_\_\_\_\_\_.

Research hypothesis (H1) for the main effect of meditation: \_\_\_\_\_\_\_\_.

Null hypothesis (H0) for the interaction between exercise and meditation: \_\_\_\_\_\_\_\_.

Research hypothesis (H1) for the interaction between exercise and meditation: \_\_\_\_\_\_\_\_.



|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *Meditation* | |  | *No Meditation* | |  | *Exercise Group Main Effect* | | |
|  | *n* | *M(SD)* |  | *n* | *M(SD)* | | |  | *M(SD)* | |
| Exercise | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |  | \_\_\_\_ | \_\_\_\_\_\_\_ | | |  | \_\_\_\_\_\_ | |
| No Exercise | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |  | \_\_\_\_\_ | \_\_\_\_\_\_\_ | | |  | \_\_\_\_\_\_ | |
| Meditation Group Main Effect | | \_\_\_\_\_\_\_ |  |  | \_\_\_\_\_\_\_ | | |  |  | |

1. Draw the graph below
2. *F*(\_\_\_, \_\_\_) = \_\_\_\_\_, *p* = \_\_\_\_\_\_, *MSE* = \_\_\_\_\_\_\_, = \_\_\_\_\_\_.
3. \_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Show your work below
5. \_\_\_\_\_\_\_
6. d = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Show your work below
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Show your work below
8. \_\_\_\_\_\_\_
9. d = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Show your work below
10. \_\_\_\_\_\_\_
11. Draw the graph below
12. *F*(\_\_\_, \_\_\_) = \_\_\_\_\_, *p* = \_\_\_\_\_\_, *MSE* = \_\_\_\_\_\_\_, = \_\_\_\_\_\_.
13. *\_\_\_\_\_\_\_\_*
14. d = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Show your work below
15. \_\_\_\_\_\_\_
16. Draw the graph below
17. *F*(\_\_\_, \_\_\_) = \_\_\_\_\_, *p* = \_\_\_\_\_\_, *MSE* = \_\_\_\_\_\_\_, = \_\_\_\_\_\_.
18. *\_\_\_\_\_\_\_\_*
19. d = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Show your work below
20. *\_\_\_\_\_\_\_\_*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *Meditation* | |  | *No Meditation* | |  | *Exercise Group Main Effect* | | |
|  | *n* | *M(SD)* |  | *n* | *M(SD)* | | |  | *M(SD)* | |
| Exercise | 10 | 6.90 (2.33) |  | 10 | 3.50 (1.58) | | |  | 5.20 (2.61) | |
| No Exercise | 10 | 4.00 (1.41) |  | 10 | 3.10 (2.03) | | |  | \_\_\_\_\_\_\_(\_\_\_\_\_\_\_) | |
| Meditation Group Main Effect | | 5.45 (2.40) |  |  | \_\_\_\_\_\_\_(\_\_\_\_\_\_\_) | | |  |  | |

A two factor ANOVA with Exercise Group and Meditation Group as the Grouping variables and optimism as the Dependent variable, revealed a significant interaction, *F* (1, \_\_\_\_\_\_) = 4.45, *p* = \_\_\_\_\_\_\_\_, *MSE* = 3.51, = .11. Among the people who exercised, those who meditated were \_\_\_\_\_\_\_\_\_optimistic than those who did not meditate, *d* = \_\_\_\_\_\_\_. Among the people who did not exercise, those who meditated were not more optimistic than those who did not meditate, *d* = .52.

The main effect of Meditation Group was also significant, *F* (1, 36) = \_\_\_\_\_\_\_\_, *p* < .001, *MSE* = 3.51, = .27. Overall, people who meditated were more optimistic than those who did not meditate, *d* = 1.03.

Finally, the main effect of Exercise group was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, *F* (1, 36) = 7.76, *p* = .001, *MSE* = 3.51, = \_\_\_\_\_. Overall, people who exercised were \_\_\_\_\_\_\_\_\_\_\_\_\_\_optimistic than those who did not exercise, *d* = \_\_\_\_\_\_\_\_.

1. \_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_Show your work below
5. d = \_\_\_\_\_\_\_\_\_\_\_\_Show your work below
6. \_\_\_\_\_\_\_\_\_\_\_\_Show your work below
7. d = \_\_\_\_\_\_\_\_\_\_\_\_Show your work below
8. \_\_\_\_\_\_\_
9. \_\_\_\_\_\_\_
10. \_\_\_\_\_\_\_
11. \_\_\_\_\_\_\_
12. \_\_\_\_\_\_\_
13. Fill in the table and then write an APA style summary report

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *Meditation* | |  | *No Meditation* | |  | *Exercise Group Main Effect* | | |
|  | *n* | *M(SD)* |  | *n* | *M(SD)* | | |  | *M(SD)* | |
| Exercise | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |  | \_\_\_\_ | \_\_\_\_\_\_\_ | | |  | \_\_\_\_\_\_ | |
| No Exercise | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |  | \_\_\_\_\_ | \_\_\_\_\_\_\_ | | |  | \_\_\_\_\_\_ | |
| Meditation Group Main Effect | | \_\_\_\_\_\_\_ |  |  | \_\_\_\_\_\_\_ | | |  |  | |