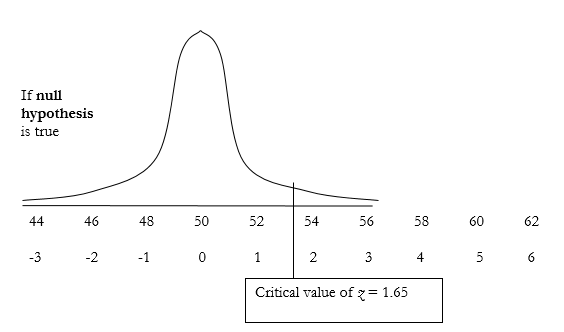
Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Due:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Activity 6-3**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_Show your work: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_
6. \_\_\_\_\_\_\_
7. \_\_\_\_\_\_\_
8. \_\_\_\_\_\_\_
9. \_\_\_\_\_\_\_
10. \_\_\_\_\_\_\_
11. \_\_\_\_\_\_\_
12. \_\_\_\_\_\_\_
13. \_\_\_\_\_\_\_
14. \_\_\_\_\_\_\_
15. \_\_\_\_\_\_\_
16. \_\_\_\_\_\_\_
17. \_\_\_\_\_\_\_
18. \_\_\_\_\_\_\_ Show your work: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



1. \_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_ Explain your reasoning:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_
6. \_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_
7. \_\_\_\_\_\_\_
8. \_\_\_\_\_\_\_
9. \_\_\_\_\_\_\_
10. \_\_\_\_\_\_\_
11. \_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_
12. \_\_\_\_\_\_\_
13. \_\_\_\_\_\_\_
14. \_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| If the treatment effect is | Statistical power will (increase/decrease/not change) | Type II error will (increase/decrease/not change) |
| Increased |  |  |
| Decreased |  |  |

1. \_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_
6. \_\_\_\_\_\_\_
7. When *N* = 25, statistical power is \_\_\_\_\_\_\_, and when *N* = 100, it is \_\_\_\_\_\_\_\_\_.

When *N* = 25, Type II error rate is \_\_\_\_\_\_\_, and when *N* = 100, it is \_\_\_\_\_\_\_\_\_.



|  |  |  |
| --- | --- | --- |
| If the sample size is | Statistical power will (increase/decrease/not change) | Type II error will (increase/decrease/not change) |
| Increased |  |  |
| Decreased |  |  |

1. \_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| If the α level is | Statistical power will (increase/decrease/not change) | Type I error will (increase/decrease/not change) | Type II error will (increase/decrease/not change) |
| Increased to .05 |  |  |  |
| Decreased to .01 |  |  |  |

1. \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| If the measurement error is | Statistical power will (increase/decrease/not change) | Type II error will (increase/decrease/not change) |
| Decreased |  |  |

1. \_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_
5. Explain your answer using effect sizes, sample sizes, and the results of the significance tests.

*I have neither given or received nor have I tolerated others’ use of unauthorized aid*

*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*