

Name: _____

Ch 8.1-8.4 Review Worksheet

1. Conduct a hypothesis test to determine if group 1 is significantly greater than group 2. Use .05 for the significance level.

Group 1:	Group 2:
$n = 50$	$n = 60$
$x = 25$	$x = 23$
$s = 1.5$	$s = 1.9$

2. Create a confidence level at 99%. Is there a significant difference between the two groups?

Group 1:	Group 2:
$n = 100$	$n = 125$
$x = 615$	$x = 600$
$s = 40$	$s = 25$

3. A weight lifting coach claims that weight lifters can increase their strength by taking a certain supplement. To test the theory, the coach randomly selects 9 athletes and gives them a strength test using a bench press before and after the supplement. Test the claim that the supplement increased their strength by using .05 significance level.

Athlete:	1	2	3	4	5	6	7	8	9
Before:	215	240	188	212	275	260	225	200	185
After	225	245	188	210	282	275	230	195	190

4. A physician claims that a person can lower their blood pressure by listening to a relaxation tape in the evening. Ten subjects had their blood pressure recorded before they were introduced to the tapes. Then after listening to the tapes for 1 month, they had their blood pressure taken again. Create a confidence interval of 99% to determine if the tapes are making a significant difference?

Patient:	1	2	3	4	5	6	7	8	9	10
Before:	85	96	92	83	80	91	79	98	93	96
After:	82	90	92	75	74	80	82	88	89	80

5. In a survey of 500 doctors that practiced specialized medicine, 20% felt that the government should control health care. In a sample of 800 doctors that were general practitioners, 30% felt that the government should control health care. Test the claim there is a difference in proportions by using .10 as the significance level.

6. A random sample of 100 students at a high school was asked whether they would ask their father or mother for help with a homework assignment in science. A second sample of 100 different students was asked the same questions about a history assignment. 43 students in the first sample and 47 in the second replied that they would turn to their mother than their father for help. Construct a 98% confidence interval to determine if there is a difference between the two groups.