

NAME: \_\_\_\_\_

## QUIZ 8

1. Compute, for population  $A$  and  $B$ , a 95% confidence interval for the mean. Do the two intervals intersect?

	$n$	$\bar{x}$	$s$
$A$	6	120	10
$B$	10	125	9

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2. Do the following data support the belief that the mean of a population  $A$  is less than the mean of population  $B$ ? Complete the test with a 5% level of significance.

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3. Suppose your null hypothesis and alternate hypothesis are:

$$H_0 : \mu = 10 \quad H_a : \mu > 10.$$

After computing the sample mean  $\bar{x} = 12$  you are able to reject the null hypothesis with a level of significance  $\alpha = 5\%$ . If null hypothesis and alternate hypothesis were instead

$$H_0 : \mu = 10 \quad H_a : \mu \neq 10$$

would you be able to reject the null hypothesis with a level of significance  $\alpha = 5\%$ ?

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With a level of significance  $\alpha = 10\%$ ?

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