

Quiz 9.2A      AP Statistics      Name: \_\_\_\_\_

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1. Eleven percent of the products produced by an industrial process over the past several months have failed to conform to specifications. The company modifies the process in an attempt to reduce the rate of nonconformities. In a random sample of 300 items from a trial run, the modified process produces 16 nonconforming items.

(a) Do these results provide convincing evidence that the modification is effective? Support your conclusion with a test of significance.

(b) Explain what the  $P$ -value of your test means in the context of this problem.