Response:   
The null hypothesis is that the proportion of ball bearings with diameter values less than 2.20 cm in the existing manufacturing process is the same as in the new process. Mathematically, this can be shown as H0: p1 - p2 = 0.

The alternative hypothesis is that the proportion of ball bearings with diameter values less than 2.20 cm in the existing manufacturing process differs from that in the new process. Mathematically, this can be shown as H1: p1 - p2 ≠ 0.

Using the level of significance for this test, alpha = 0.05.

Based on the test statistic and P-value, a conclusion can be made about whether to reject the null hypothesis. Suppose the P-value is less than the significance level (alpha = 0.05). In that case, there is enough evidence to reject the null hypothesis and conclude that the proportion of ball bearings with diameter values less than 2.20 cm in the existing manufacturing process differs from the proportion in the new process. On the other hand, suppose the P-value is more significant than the significance level. In that case, there is not enough evidence to reject the null hypothesis, and it should be concluded that the proportion of ball bearings with diameter values less than 2.20 cm in the existing manufacturing process is the same as the proportion in the new process.  
  
My Data:

Diameters data frame of the first sample (showing only the first five observations)

Diameters

0 2.49

1 1.61

2 3.03

3 2.38

4 2.05

Diameters data frame of the second sample (showing only the first five observations)

Diameters

0 3.41

1 1.77

2 2.75

3 2.80

4 2.19

test-statistic = -0.23

two tailed p-value = 0.8218