Example
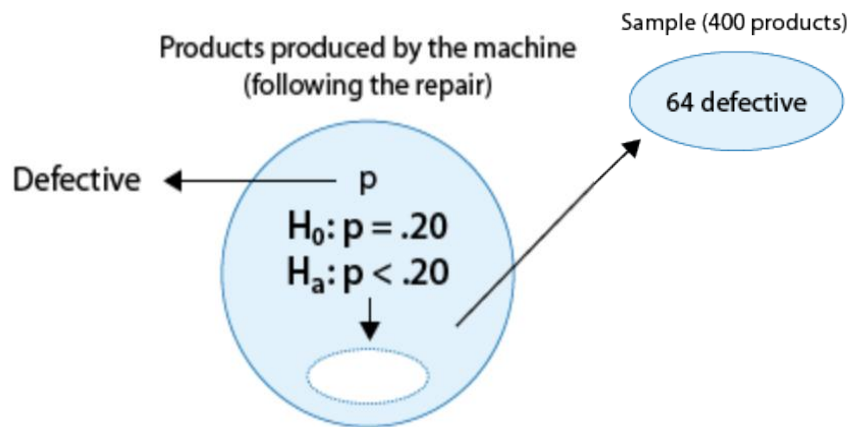
A factory machine is known to produce 20% defective products, and is therefore sent for repair. After the machine is repaired, 400 products produced by the machine are chosen at random and 64 of them are found to be defective.
Do the data provide enough evidence that the proportion of defective products produced by the machine has been reduced as a result of the repair?

Products produced by the machine (following the repair)

Sample (400 products)

64 defective

Defective

p

$H_0: p = .20$
$H_a: p < .20$

2. **Collect data, check the conditions, and summarize data with test statistic if the conditions are met.**

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