## **Hypothesis Testing in Real Life**

## Manufacturing

Hypothesis tests are also used often in manufacturing plants to determine if some new process, technique, method, etc. causes a change in the number of defective products produced.

For example, suppose a certain manufacturing plant wants to test whether or not some new method changes the number of defective widgets produced per month, which is currently 250. To test this, they may measure the mean number of defective widgets produced before and after using the new method for one month.

## **Clinical Trials**

Hypothesis tests are often used in clinical trials to determine whether some new treatment, drug, procedure, etc. causes improved outcomes in patients.

For example, suppose a doctor believes that a new drug is able to reduce blood pressure in obese patients. To test this, he may measure the blood pressure of 40 patients before and after using the new drug for one month.

## **Advertising Spend**

Hypothesis tests are often used in business to determine whether or not some new advertising campaign, marketing technique, etc. causes increased sales

For example, suppose a company believes that spending more money on digital advertising leads to increased sales. To test this, the company may increase money spent on digital advertising during a two-month period and collect data to see if overall sales have increased.