

## Hypothesis Testing *Difference in means test*

### Example

The file Age Data.xlsx contains age data for a sample of 40 Men first year MBA students and 40 Women first year MBA students drawn from various Business schools in the US.

Given this sample data we wish to test the hypothesis that the average age of Women MBA students in the United States is greater than or equal to the average age of Men MBA students.

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### Step 1 : Formulate Hypothesis

$$H_0: \mu_{\text{Women}} - \mu_{\text{Men}} \geq 0$$

$$H_A: \mu_{\text{Women}} - \mu_{\text{Men}} < 0$$

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On average, Women ages are less than that of Men MBA students