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Government TRAINING COURSE

* Before 58%
* After 189/300 = 63%. improvement?

Testing if there was an improvement After. introduction of scheme

- H_0 : NO improvement
- H_1 : improvement.

Equivalently

- H_0 : $P \leq 0.58$ no improvement
- H_1 : $P > 0.58$ improvement.

TEST STATISTIC

$$\frac{\text{observed} - H_0}{\text{S.E.}} = \frac{63 - 58}{\sqrt{\frac{58 \times 42}{300}}}$$

N.B: use Expected value of P when Ho is assumed to be true when Computing S.E. for hypothesis tests,

2)

$$TS = z = \frac{5}{\sqrt{2436/300}} = \frac{5}{\sqrt{8.12}}$$

$$= 5/2.85$$

$$= 1.755.$$

C.V. $\alpha = 5\%$

Test is a one tailed test.

Column $= \alpha/1 = 0.05$

Large Sample

$\therefore$ CV = 1.645.

Decision.

If $|TS| > CV$ then Reject Ho.

Here $|1.755| > 1.645$

Therefore we can Reject Ho.

Sufficient evidence of improvement.