	n	1	$\hat{p}$
A	174	82	0.47
B	177	63	0.36

(figure 1)

- We are interested to know if there is significant difference between A and B. As the reaction from the user is boolean We are considering binomial distribution.

- the test we do is:
$$\begin{cases} H_o: \hat{P}_A = \hat{P}_B \\ H_1: \hat{P}_A > \hat{P}_B \end{cases}$$

from the theory we know that the test statistic is

$$Z = \frac{\hat{P}_A - \hat{P}_B}{\sqrt{\hat{P}(1-\hat{P})\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$ where $\hat{P} = \frac{n_A \cdot \hat{P}_A + n_B \hat{P}_B}{n_A + n_B}$

and applying the figures we have $Z \simeq 2.2$

- Looking at the $N(0,1)$ table we see that our P-value $= 1 - 0.9861 = 0.0139$ (we consider only 1 tail because our test is unilateral $H_1 : \hat{p}_A > \hat{p}_B$).

Conclusion

We reject $H_0 : \hat{p}_A = \hat{p}_B$ with a 98% confi.