



DATA BASED ARGUMENT

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HYPOTHESIS TESTING

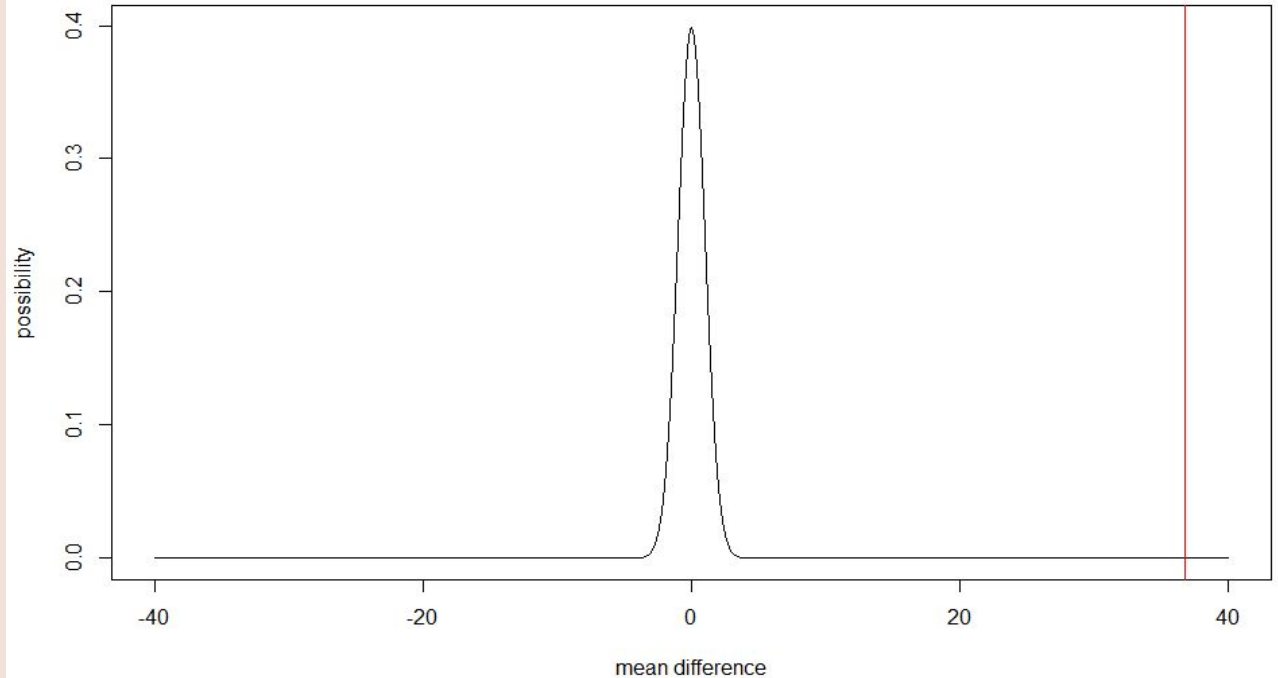
- **NULL HYPOTHESIS :** The average temperature (celsius) of two Asian countries, Malaysia and Pakistan is equal and has not increased over years and has no risk of Global warming.
- **ALTERNATIVE HYPOTHESIS:** Malaysia which is an asian country has significantly higher average temperature (In Celsius) than other Asian country Pakistan and has increased over years and their is Risk of Global warming.

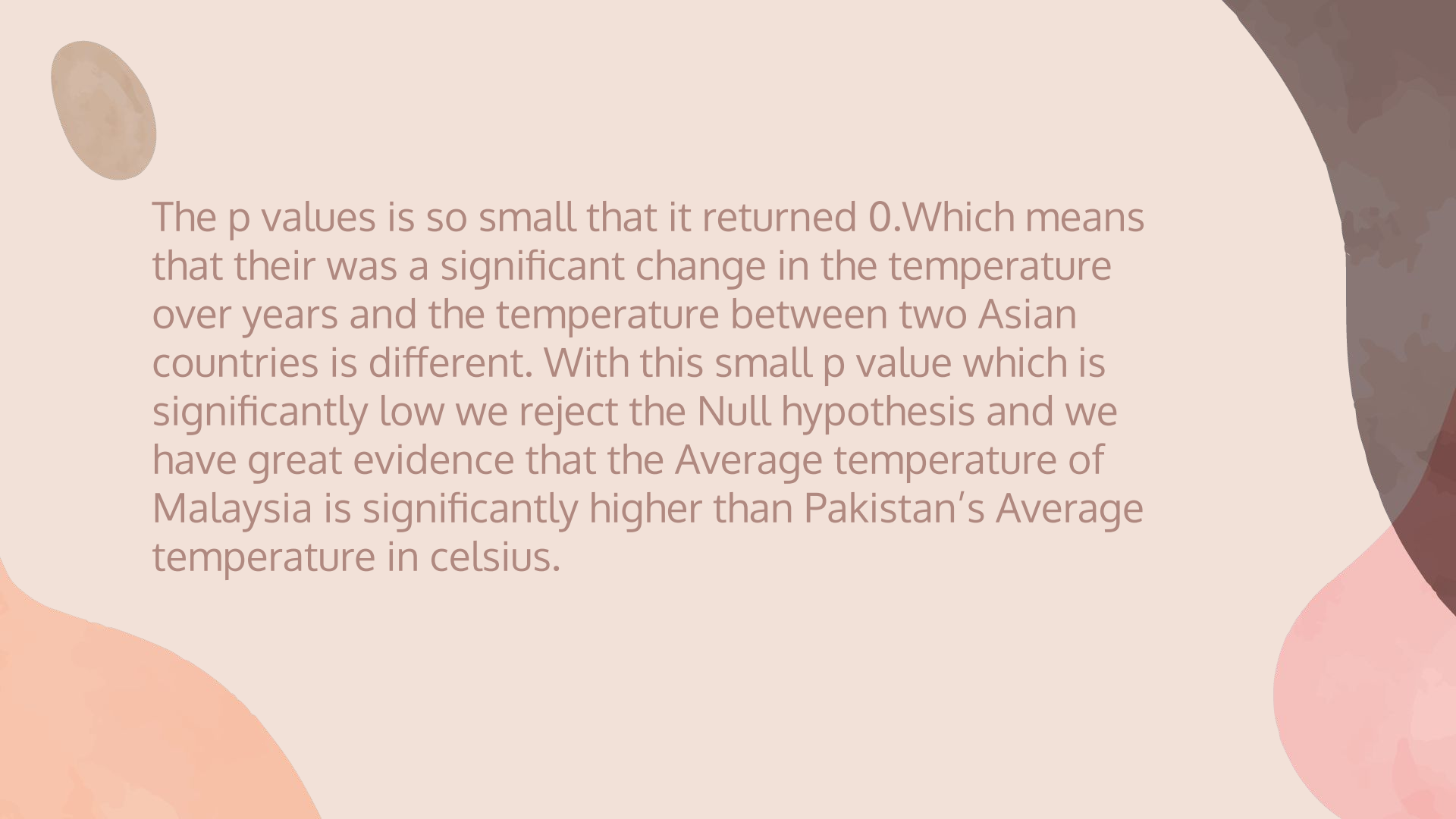
Values

$Z.\text{score} = (\text{mean.malaysia} - \text{mean.pakistan}) / \text{sd.pak.mal}$

#Z.score
= 36.75671

$p = 1 - \text{pnorm}(Z.\text{score})$
 $p = 0$



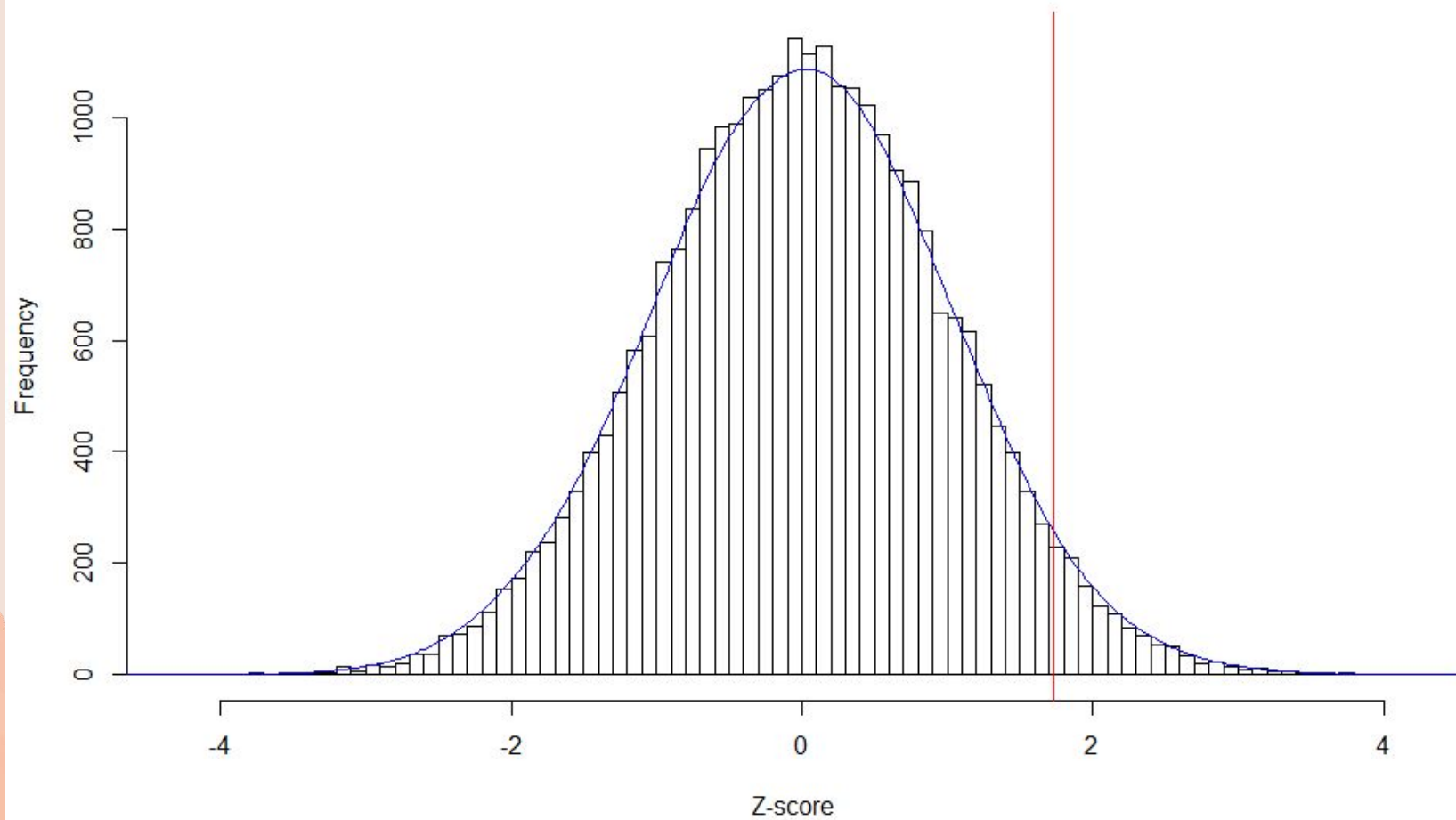


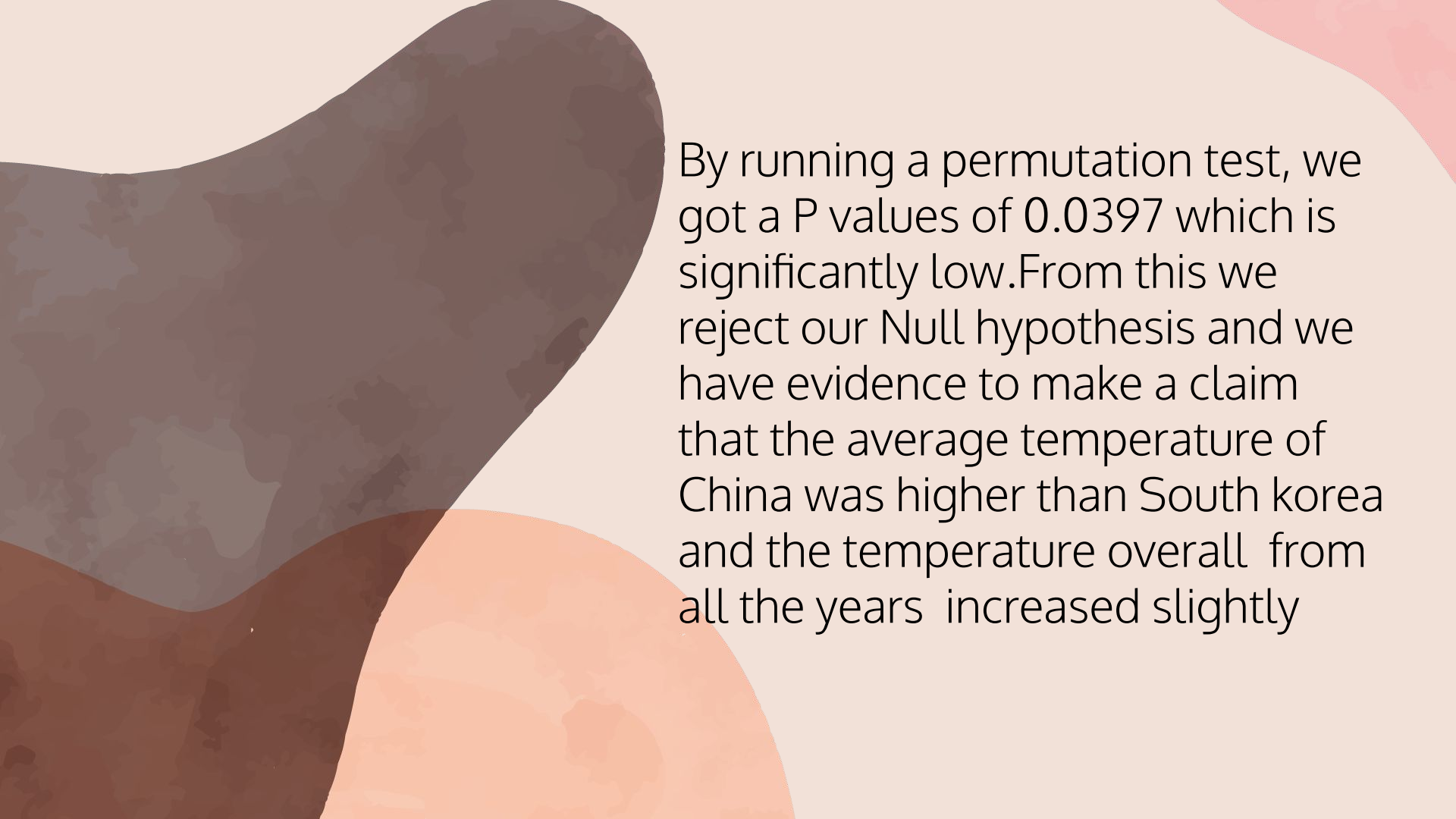
The p values is so small that it returned 0. Which means that there was a significant change in the temperature over years and the temperature between two Asian countries is different. With this small p value which is significantly low we reject the Null hypothesis and we have great evidence that the Average temperature of Malaysia is significantly higher than Pakistan's Average temperature in celsius.

Second Hypothesis testing

- **NULL HYPOTHESIS :** The average temperature (celsius) of two Asian countries, China and South Korea is equal and has not increased over years and has no risk of Global warming.
- **ALTERNATIVE HYPOTHESIS:** China's Average has significantly higher average temperature (In Celsius) than South Korea and has increased over years and their is Risk of Global warming.

Permutation Test





By running a permutation test, we got a P values of 0.0397 which is significantly low. From this we reject our Null hypothesis and we have evidence to make a claim that the average temperature of China was higher than South korea and the temperature overall from all the years increased slightly

CONCLUSION:

GLOBAL WARMING IS REAL IN ASIAN COUNTRIES!!

We tested Four Asian countries with two different methods and found out that the Average Temperature was higher and by looking at the graph, one can tell that the average temperature was increasing over the course of years and we can conclude that Global warming is increasing in the Asian countries.





THANKS

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