

CT4031
Maths for Data Science

Week 5 - Practical





Bayes theorem and probability

- Create a function to calculate the bayes theorem.
- Test this function using the examples from today's lesson.





Bayes theorem function

```
def bayes_theorem(p_a, p_b_given_a, p_b):
    p_a_given_b = (p_b_given_a * p_a) / p_b
    return p_a_given_b
p_a = 0.0002
p_b_given_a = 0.85
p_b = 0.05
result = bayes_theorem(p_a, p_b_given_a, p_b)
print('P(A|B) = %.3f%' % (result * 100))
```



