

NCEA Level 3 Calculus (Integration)

17. The Fundamental Theorem of Calculus (Homework)

Reading

Go and watch...

<https://www.youtube.com/watch?v=FnJqaIESC2s>

Questions

1. Evaluate

$$\int_0^{\frac{\pi}{4}} \sec^2 \theta \, d\theta$$

2. If $\int_1^3 f(x) \, dx = 7$ and $\int_2^3 f(x) \, dx = -3$, what is the value of $\int_1^2 f(x) \, dx$?
3. Find the area enclosed between the graphs of $3y = x^2$ and $y = 2x$.