

8. (a) Explain why $\int_0^5 \frac{2}{\sqrt[3]{2-x}} dx$ is an improper integral.

(1)

(b) Prove that

$$\int_0^5 \frac{2}{\sqrt[3]{2-x}} dx = a(\sqrt[3]{b} - \sqrt[3]{c})$$

where a , b and c are integers to be determined.

(5)