A primer on ABC

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Introduction

Note that

i. first point
ii. second point
iii. third point

1 First section

Definition 1. A *number* is a...

2 Second section

Lemma 1. *We have*

$$\int_0^{\pi} \sin(3x)\,\mathrm{d}x = \frac{2}{3}.$$

Proof. A direct computation yields

$$\begin{aligned}\int_0^{\pi} \sin(3x)\,\mathrm{d}x &= \frac{1}{3}\int_0^{3\pi} \sin u\,\mathrm{d}u, \qquad u = 3x,\\ &= \frac{1}{3}\big[-\cos u\big]_0^{3\pi}\\ &= \frac{1}{3}\big[1-(-1)\big]\\ &= \frac{2}{3}.\end{aligned}$$

□

Remark 1. This is interesting since...