

Answer on Question #46046 – Math – Integral Calculus

Determine $I = \int 2 \cos x dx$, given that $I=7$ when $x=2\pi$.

$3 \sin x + 5$

$2 \sin x + 5$

$4 \cos x + C$

$5 \sin x + C$

Solution

$$I = \int 2 \cos x dx = 2 \int \cos x dx = 2 \sin x + c$$

$$I(2\pi) = 2 \sin(2\pi) + c = 0 + c = 7 \Rightarrow I = 2 \sin x + 7$$

Answer: $I = 2 \sin x + 7$, correct answers were absent .