Multizestaw zadań

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1 Wikieł/C1.1n

1. Zadanie z Wikieł C 1.1n moja wersja nr [nrWersji]
Oblicz całkę

$$\int \frac{[a]\cdot[b]^x-[c]\cdot[d]^x}{[e]^x}dx.$$

Rozwiązanie (autor Justyna Chojecka , recenzent):

$$\int \frac{[a]\cdot[b]^x-[c]\cdot[d]^x}{[e]^x}dx=\int\left(\frac{[a]\cdot[b]^x}{[e]^x}-\frac{[c]\cdot[d]^x}{[e]^x}\right)dx$$

$$=\int \frac{[a]\cdot[b]^x}{[e]^x}dx-\int \frac{[c]\cdot[d]^x}{[e]^x}dx=[a]\int \frac{[b]^x}{[e]^x}dx-[c]\int \frac{[d]^x}{[e]^x}dx$$

$$=[a]\int\left(\frac{[b]}{[e]}\right)^x dx-[c]\int\left(\frac{[d]}{[e]}\right)^x dx=\frac{[a]}{ln\left(\frac{[b]}{[e]}\right)}\left(\frac{[b]}{[e]}\right)^x-\frac{[c]}{ln\left(\frac{[d]}{[e]}\right)}\left(\frac{[d]}{[e]}\right)^x+C$$

Odpowiedź:
$\frac{[a]}{ln\left(\frac{[b]}{[e]}\right)}\left(\frac{[b]}{[e]}\right)^x-\frac{[c]}{ln\left(\frac{[d]}{[e]}\right)}\left(\frac{[d]}{[e]}\right)^x+C$
Test:
A. $\frac{[a]}{ln\left(\frac{[b]}{[e]}\right)}\left(\frac{[b]}{[e]}\right)^x-\frac{[c]}{ln\left(\frac{[d]}{[e]}\right)}\left(\frac{[d]}{[e]}\right)^x+C$
B. $\frac{[a]}{ln\left(\frac{[b]}{[e]}\right)}\left(\frac{[b]}{[e]}\right)^x-\frac{[d]}{ln\left(\frac{[c]}{[e]}\right)}\left(\frac{[d]}{[e]}\right)^x+C$
C. $-\frac{[a]}{ln\left(\frac{[b]}{[e]}\right)}\left(\frac{[b]}{[e]}\right)^x-\frac{[c]}{ln\left(\frac{[d]}{[e]}\right)}\left(\frac{[d]}{[e]}\right)^x+C$
D. $\frac{[a]}{ln\left(\frac{[b]}{[e]}\right)}\left(\frac{[b]}{[e]}\right)^x-\frac{[c]}{ln\left(\frac{[e]}{[d]}\right)}\left(\frac{[d]}{[e]}\right)^x+C$
E. $\frac{[a]}{ln\left(\frac{[e]}{[b]}\right)}\left(\frac{[b]}{[e]}\right)^x+\frac{[c]}{ln\left(\frac{[d]}{[e]}\right)}\left(\frac{[d]}{[e]}\right)^x+C$
F. $\frac{[a]}{ln\left(\frac{[e]}{[b]}\right)}\left(\frac{[b]}{[e]}\right)^x-\frac{[c]}{ln\left(\frac{[d]}{[e]}\right)}\left(\frac{[d]}{[e]}\right)^x+C$
G. $\frac{[a]}{ln\left(\frac{[b]}{[e]}\right)}\left(\frac{[b]}{[e]}\right)^x+\frac{[c]}{ln\left(\frac{[d]}{[e]}\right)}\left(\frac{[d]}{[e]}\right)^x+C$

H. $\frac{[a]}{ln\left(\frac{[b]}{[e]}\right)}\left(\frac{[b]}{[e]}\right)^x + \frac{[c]}{ln\left(\frac{[e]}{[d]}\right)}\left(\frac{[d]}{[e]}\right)^x + C$

I. $-\frac{[a]}{ln\left(\frac{[b]}{[e]}\right)}\left(\frac{[b]}{[e]}\right)^x + \frac{[c]}{ln\left(\frac{[d]}{[e]}\right)}\left(\frac{[d]}{[e]}\right)^x + C$

Test poprawna odpowiedź:
A