WHY DID THE e^x FUNCTIONS FAIL TO INTEGRATE INTO A COMMUNITY OF LN(X) FUNCTIONS?

Match each indefinite integral with an anti-derivative.

1) $\int e^x dx$	2) $2\int e^x dx$	3) $\frac{1}{2}\int e^x dx$	4) $\int e^{2x} dx$	5) $3\int e^{3x} dx$
6) $\int 2^x dx$	7) $\int 3^x dx$	8) $3\int 2^x dx$	9) $\int 2^{3x} dx$	10) $\int 2^x \ln 2\, dx$
11) $\int e^{2x+1} dx$	12) $\int e^{3x+1} dx$	13) $\int \frac{e^x+1}{e^x} dx$	14) $\int (e^x-1)(e^{-x}+1) dx$	

Anti-derivatives.

A. $\frac{1}{2}e^x + C$	C. $\frac{1}{2}e^{2x} + C$	D. $e^x + C$	E. $2e^x + C$	G. $e^{3x} + C$
E. $2^x + C$	L. $\frac{1}{2}e^{2x+1} + C$	H. $\frac{1}{3}e^{3x+1} + C$	N. $x - e^{-x} + C$	O. $e^x + e^{-x} + C$
S. $e^x - e^{-x} + C$	T. $\frac{2^x}{\ln 2} + C$	U. $\frac{3 \cdot 2^x}{\ln 2} + C$	W. $\frac{2^{3x}}{3\ln 2} + C$	Y. $\frac{3^x}{\ln 3} + C$

6	12	10	7

9	14	8	11	1	13

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6

4	12	3	13	5	2

WHY IS $\int \frac{d(\text{CABIN})}{\text{CABIN}}$ LIKE A HOUSEBOAT?

Match each indefinite integral with an anti-derivative.

1) $\int \frac{dx}{x}$	2) $\int \frac{2dx}{x}$	3) $\int \frac{dx}{2x}$	4) $\int \frac{dx}{x^2}$	5) $\int \frac{dx}{x^3}$
6) $\int \frac{dx}{x-1}$	7) $\int \frac{dx}{1-x}$	8) $\int \frac{2dx}{3x-1}$	9) $\int \frac{3dx}{2x-1}$	
10) $\int \frac{x+1}{x} dx$	11) $\int \frac{x^2-1}{x} dx$	12) $\int \frac{x+1}{x^2} dx$	13) $\int (x-1)(x^{-1}+1) dx$	

Anti-Derivatives.

A. $\frac{1}{2}\ln|x| + C$	B. $2\ln|x| + C$	C. $\ln|x| + C$	E. $-\frac{1}{2}x^{-2} + C$	G. $-x^{-1} + C$
I. $\ln|x-1| + C$	L. $-\ln|1-x| + C$	N. $\frac{1}{2}x^2 - \ln|x| + C$	O. $x + \ln|x| + C$	
P. $\frac{2}{3}\ln|3x-1| + C$	S. $\frac{3}{2}\ln|2x-1| + C$	T. $\ln|1-x| + C$	U. $\ln|x| - \frac{1}{x} + C$	

7	13

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1	3	2	6	13

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7	10	4

1	3	2	6	11

8	7	12	9

9	5	3