

Calculus

F 18 October 2013

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PARTICIPANT LIST
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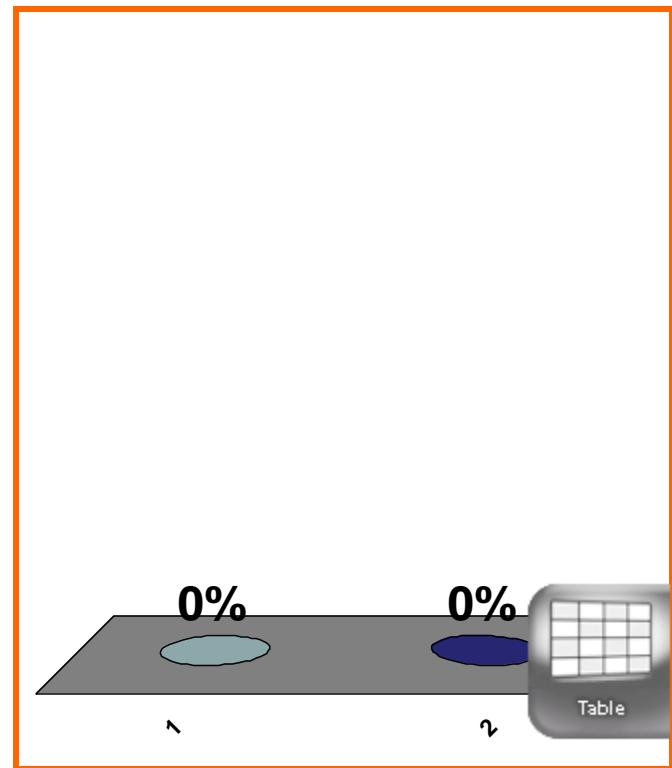
Response tables
 \sum points = 100
Pts agree
Answers agree

**QUIZ
FOLLOWS**

$1 + 1 = ??$

(a) 1

(b) 2



arithmetic

0 pts

$$(d/dx)(\arctan x) = \frac{1}{1+x^2}$$

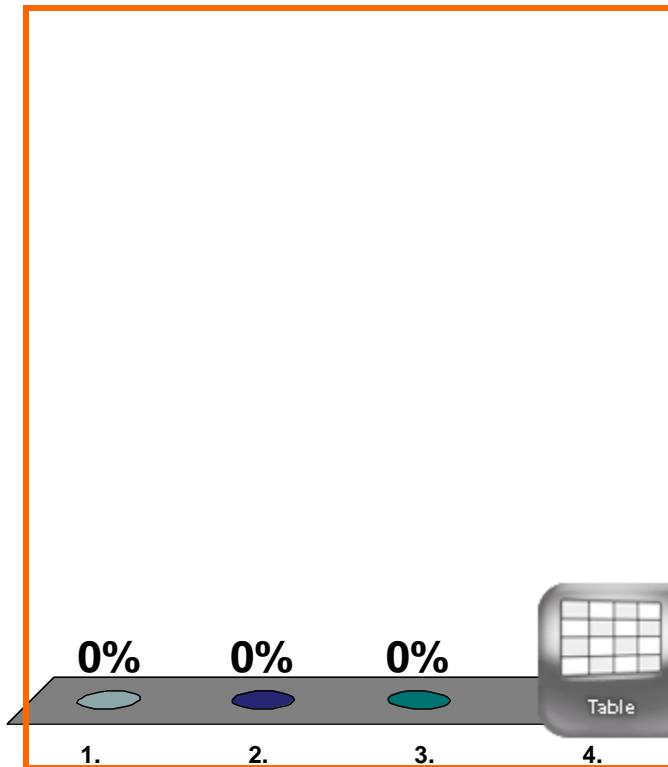
(a) $\frac{1}{1+(e^x)^2}$

$$(d/dx)(\arctan e^x) = ??$$

(b) $(\operatorname{arcsec}^2 e^x)(e^x)$

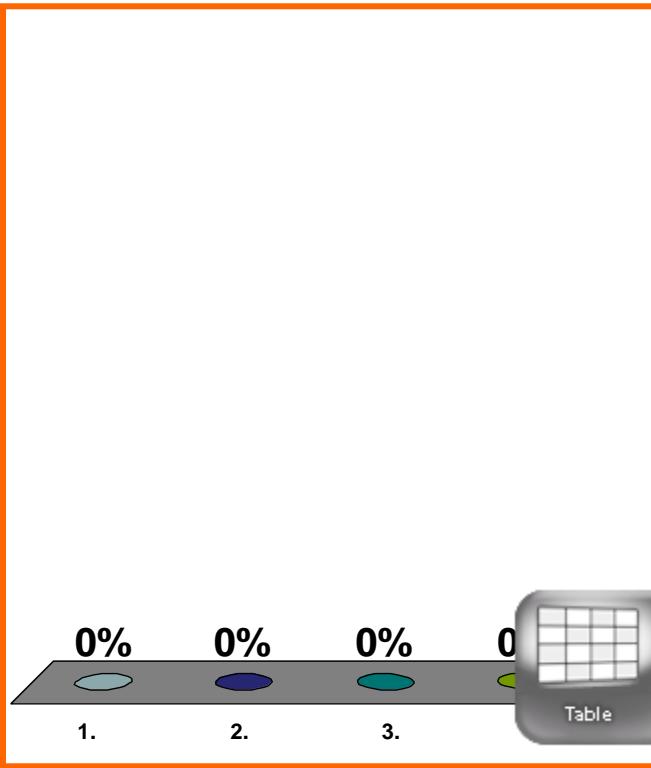
(c) $\frac{e^x}{1+(e^x)^2}$

(d) none of the above



$$\lim_{x \rightarrow 0} \frac{e^x - 1 - x}{x^2} = ??$$

- (a) $\lim_{x \rightarrow 0} \frac{(e^x - 1 - x)(2x) - (x^2)(e^x - 1)}{x^4}$
- (b) $\lim_{x \rightarrow 0} \frac{(x^2)(e^x - 1) - (e^x - 1 - x)(2x)}{x^4}$
- (c) $\lim_{x \rightarrow 0} \frac{e^x - 1}{2x}$
- (d) none of the above



$$\ln(1 + (3/n)) \underset{n \rightarrow \infty}{\approx} 3/n$$

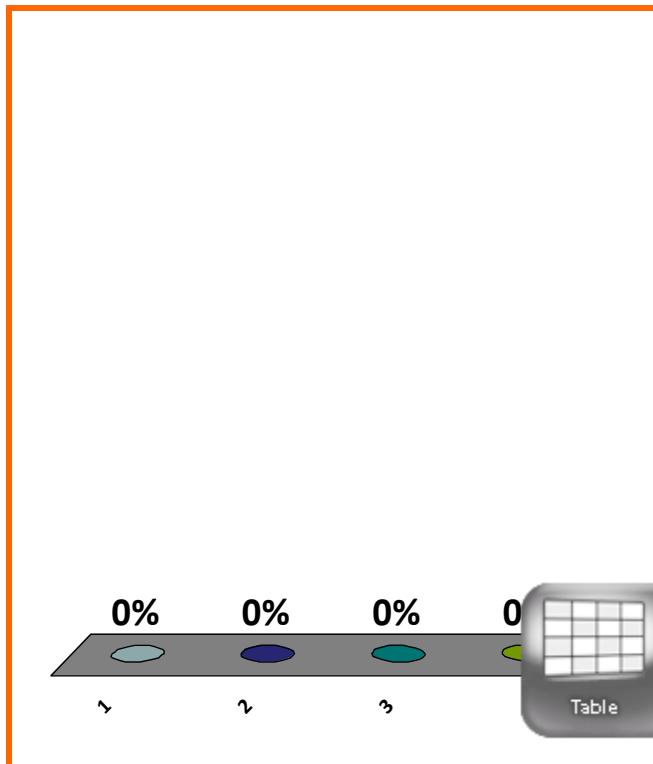
$$\lim_{n \rightarrow \infty} n[\ln(1 + (3/n))] = ??$$

(a) 0

(b) 3

(c) ∞

(d) none of the above



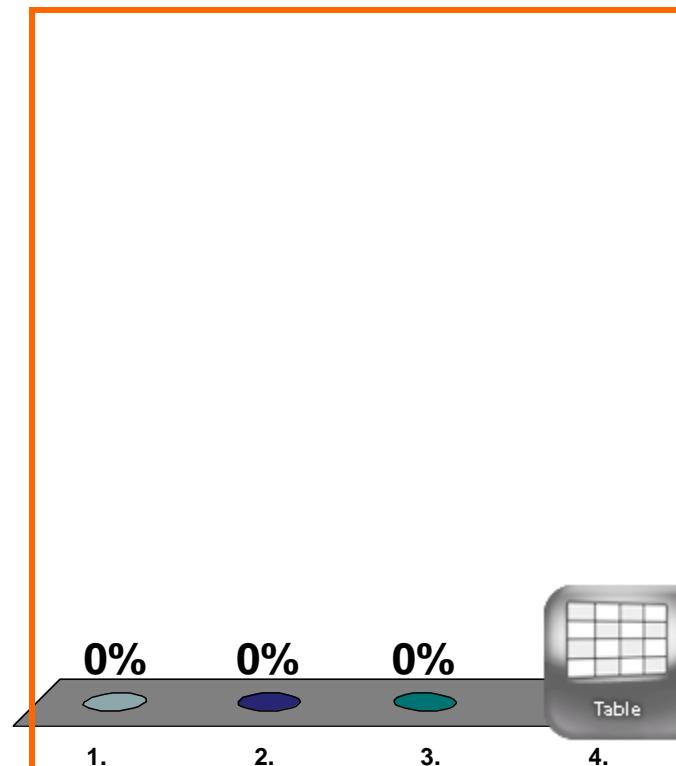
$$[d/dx][xe^y + y] = ??$$

(a) $e^y + xe^y y' + y'$

(b) $e^y + xe^y + 1$

(c) $e^y + xe^y + y'$

(d) none of the above



**END
QUIZ**