Calculus
M 27 February 2012

RESET THE SESSION

SET THE PARTICIPANT LIST

PLUG IN THE RECEIVER

Look at an unused file

Cover the look ahead

Topics covered are in bounds

Boxed answers agree with TurningPoint answers

Points agree with TurningPoint points

Points total to 100

QUIZ
FOLLOWS

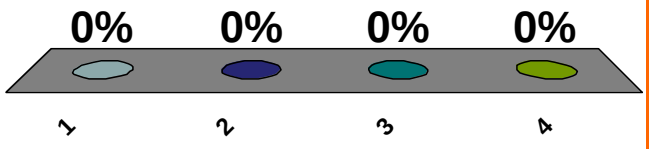
$$\lim_{x\to 0}\frac{e^x-1-x}{x^2}\underset{\text{I'H}}{=}\lim_{x\to 0}\frac{e^x-1}{2x}$$

(a) $\lim_{x\to 0}\frac{e^x}{2}$

(b) $\lim_{x\to 0}\frac{[2x][e^x]-[e^x-1][2]}{4x^2}$

(c) DNE

(d) none of the above



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21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

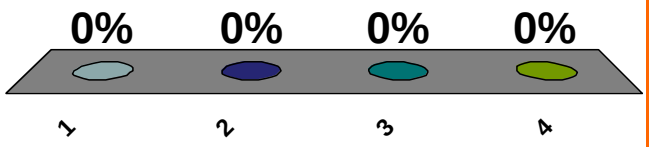
$$\lim_{x \to 0} \frac{e^x - x}{x^3}$$

(a) ∞

(b) $\lim_{x \to 0} \frac{e^x - 1}{2x}$

(c) DNE

(d) none of the above



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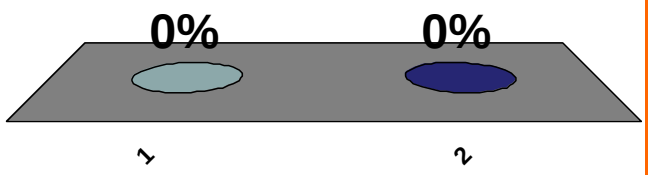
T or F:

$f' > 0$ on $(2, 3)$

$\Rightarrow$ f incr. on $(2, 3)$

(a) True

(b) False



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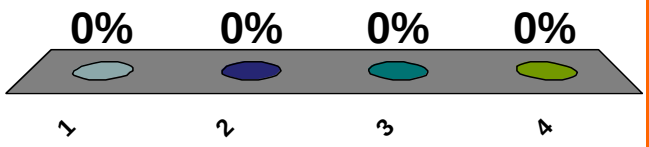
$$\frac{d}{dx}[\ln 5] = ??$$

(a) DNE

(b) 1/5

(c) 0

(d) none of the above



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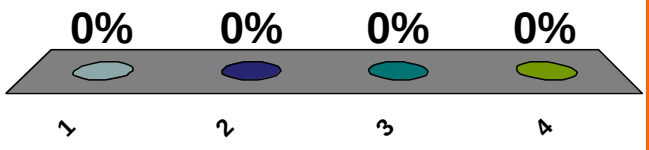
$(d/dx)(\ln|x|)$

(a) $1/x,\ x > 0$

(b) $|1/x|$

(c) $1/x$

(d) none of the above



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

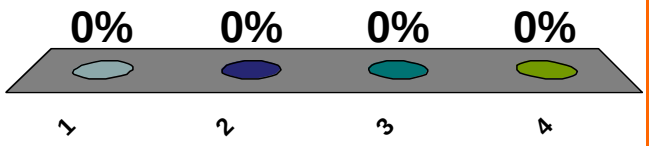
$$(d/dx)(\arctan e^x) = \text{??}$$

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

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

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

(d) none of the above



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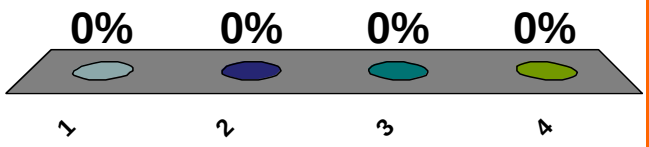
$$(d/dx)(e^{-2x})$$

(a) e^{-2x}

(b) e^{-2}

(c) $-2e^{-2x}$

(d) none of the above



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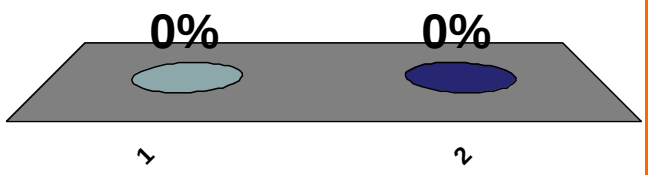
T or F:

$$\forall x \in \mathbb{R}, \quad \ln(e^x) = x$$

(a) True

(b) False



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0 of 5

precalc

0 pts

T or F:

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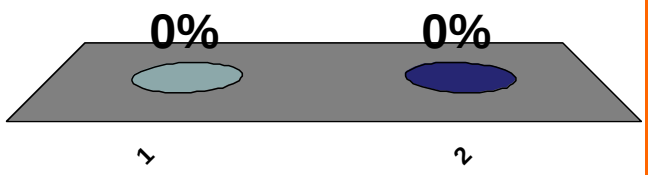

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precalc

0 pts

LOOK AHEAD

summation x^n, $n = 1, 2, 3$

antideriv/indef int. of x^n w.r.t. x

antideriv/indef int. of x^{-1} w.r.t. x

linearity of integration

CURRENT (indet forms)

$$f(x) \underset{x \to a}{\to} \quad \Rightarrow \quad \ln(1 + [f(x)]) \underset{x \to a}{\sim} f(x)$$

$$\lim_{n \to \infty} \left(1 + \frac{1}{n^2} + \frac{2}{n^5}\right)^{n^2+n}$$

$$\lim_{x \to \infty} \left(\sqrt{x^2 + x} - \sqrt{x^2 - 7x}\right)$$

$$\lim_{x \to 0} \left(\frac{\cos x}{x^2} - \frac{\cot x}{x}\right)$$

LOOK BACK

derivs w.r.t. x of exprs of y

SAVE THE SESSION DATA

RETURN TO PRESENTATION