

# Calculus

F 4 October 2013

RECEIVER  
PARTICIPANT LIST  
RESET SESSION

Response tables

$\Sigma$  points = 100

Pts agree

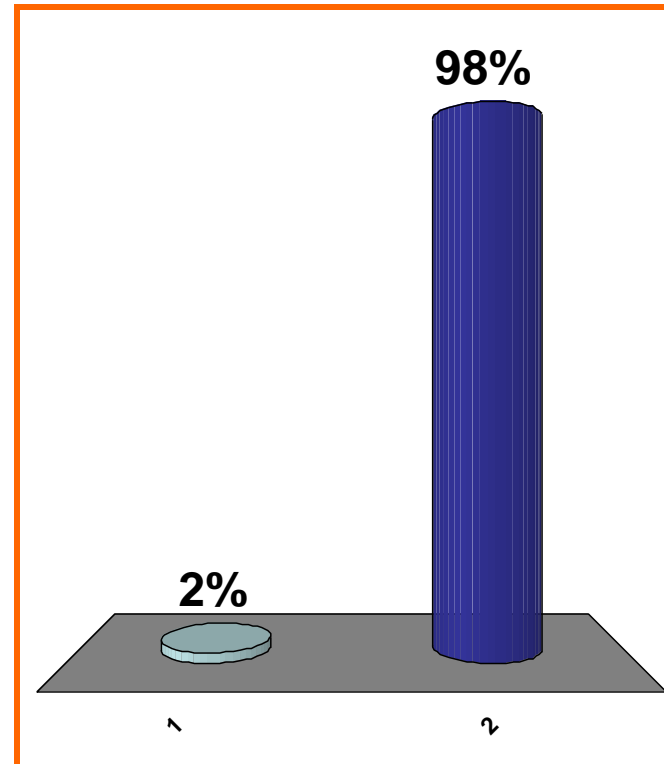
Answers agree

QUIZ  
FOLLOWS

$$1 + 1 = ??$$

(a) 1

(b) 2



arithmetic

0 pts

5

$$\frac{d}{dx} [x \sin x + 4 \cos x] = ??$$

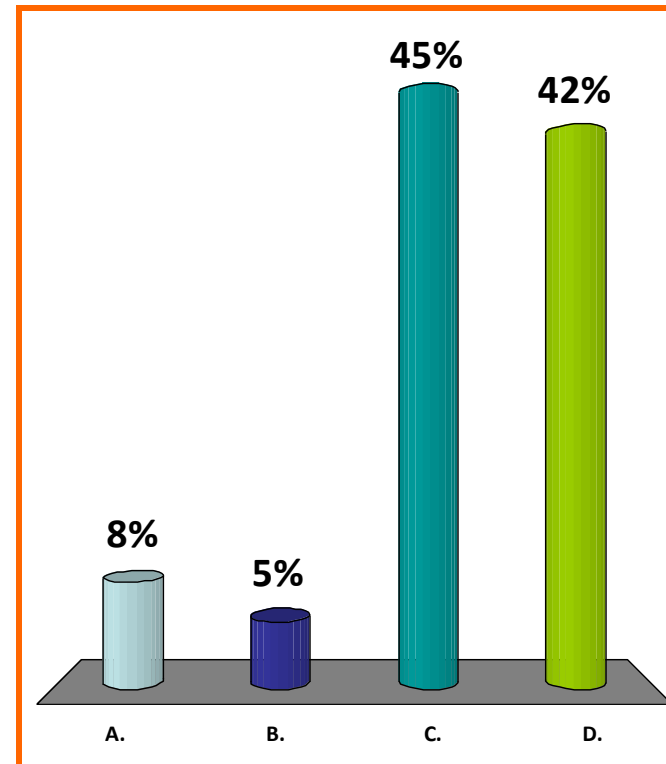
(a)  $(1)(\cos x) + (0)(-\sin x)$

(b)  $x \cos x + 4 \sin x$

(c)  $x \cos x - 4 \sin x$

(d) none of the above

Correct:  $\sin x + x \cos x - 4 \sin x$



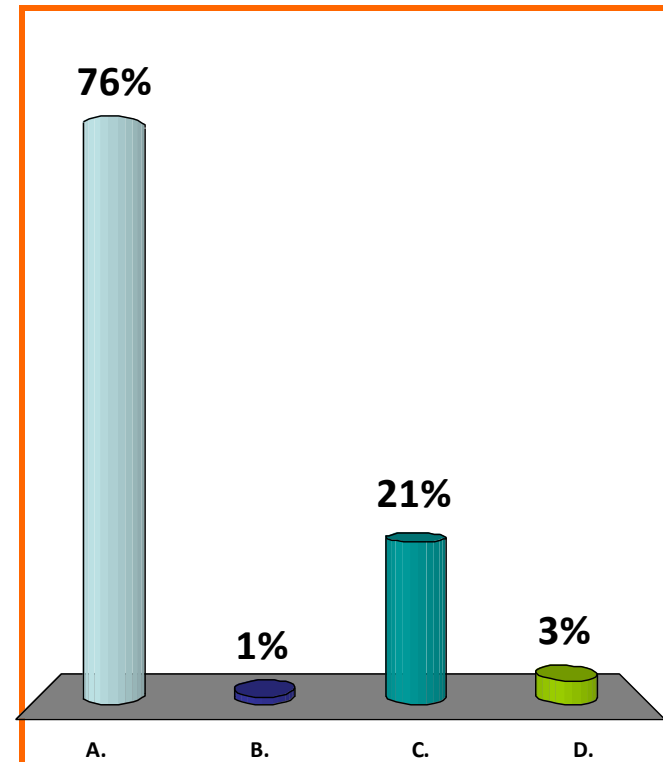
$$\frac{d}{dx} \left[ \ln \left| (x^2 + 4x - 1)^{1/3} \right| \right]$$

$$(a) \frac{1}{3} \cdot \frac{2x + 4}{x^2 + 4x - 1}$$

$$(b) \left( \frac{2x + 4}{x^2 + 4x - 1} \right)^{1/3}$$

$$(c) \frac{1}{3} \left( \frac{2x + 4}{x^2 + 4x - 1} \right)^{-2/3}$$

(d) none of the above



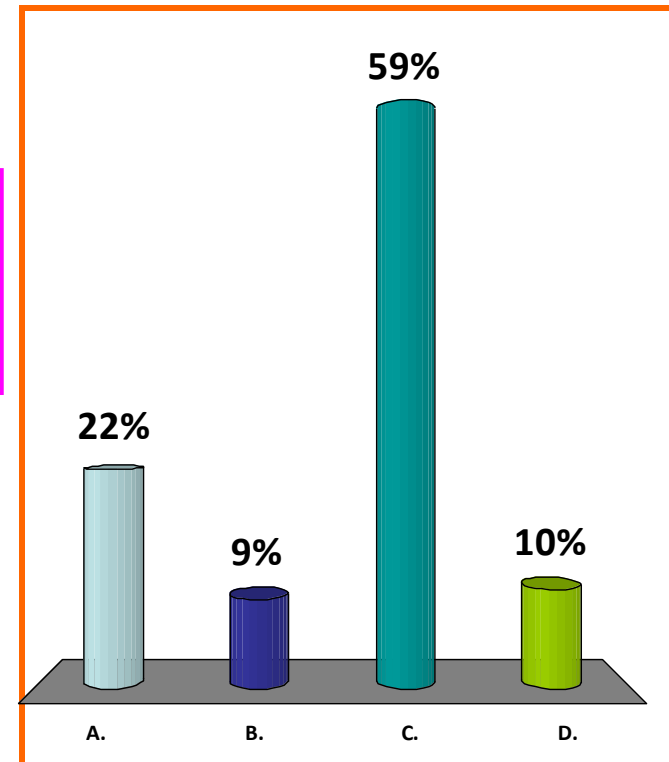
$$(a) x(1+x^2)^{x-1} \left[ \frac{d}{dx}(1+x^2) \right]$$

$$\frac{d}{dx} \left[ (1+x^2)^x \right]$$

$$(b) x(2x)^{x-1}$$

$$(c) \left[ (1+x^2)^x \right] \left[ \frac{d}{dx} (x \cdot \ln(1+x^2)) \right]$$

(d) none of the above





Find  $\log_{10}(7)$ ,

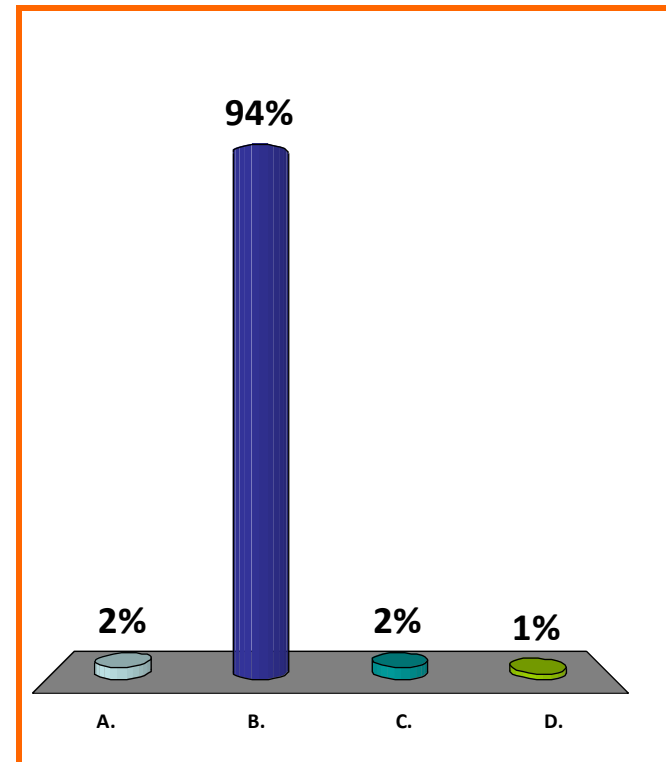
i.e., solve  $10^{??} = 7$ .

(a)  $\frac{\ln 10}{\ln 7}$

(b)  $\frac{\ln 7}{\ln 10}$

(c)  $\ln(7/10)$

(d) none of the above



END  
QUIZ