MAC1140 SEC29 HW 09-28-2007 4.4

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Full Name: Sec#: Extra Credit Attempted?

1. [4.4.1bPT]Expand $\ln\left(\frac{x^4\sqrt{y-2}}{z^5}\right)$

- ○ $4\ln x+\frac{1}{2}\ln y-\frac{1}{2}\ln 2-5\ln z$
- ○ $4\ln x-\frac{1}{2}\ln(y-2)+5\ln z$
- ○ $4\ln x+\frac{1}{2}\ln(y-2)-5\ln z$
- ○ $4\ln x-\frac{1}{2}\ln(y-2)-5\ln z$

2. [4.4.1cPT]$\frac{1}{3}\log z-3\log x+5\log y=$

- ○ $\log\left(\frac{\sqrt[3]{z}x^3}{y^5}\right)$
- ○ $\log\left(\frac{x^3}{\sqrt[3]{z}y^5}\right)$
- ○ $\log\left(\frac{\sqrt[3]{z}}{x^3y^5}\right)$
- ○ $\log\left(\frac{\sqrt[3]{z}y^5}{x^3}\right)$

3. [4.4.2bPT]$e^{(5\ln 2-\ln 3)}=$

22

$\frac{25}{3}$

$\frac{32}{3}$

-5

None of these

4. [4.4.2bPT]$e^{(3\ln 3-\ln 2)}=$

- ○ 25
- ○ 7
- ○ None of these

- $\frac{27}{2}$
- $\frac{9}{2}$

5. [4.4.2dPT]If $\ln y = 5x - 2\ln 3$, then $y =$

- $e^{\frac{5x}{9}}$
- $e^{5x} - 9$
- e^{5x-9}
- $\frac{e^{5x}}{9}$
- $-9e^{5x}$