

Each problem is worth 5 points. For full credit indicate clearly how you reached your answer.

1. Evaluate $\log_5\left(\frac{1}{25}\right)$.

$$\log_5\left(\frac{1}{25}\right) =$$

$$5^{(-2)}$$

$$(-2)$$

what exponent
do you put
on 5 to get $\frac{1}{25}$?

Excellent

2. Evaluate $\ln \sqrt{e}$.

$$\ln \sqrt{e}$$

$$\sqrt{e} \text{ is } e^{\frac{1}{2}},$$

$$\begin{aligned} \text{so } \ln \sqrt{e} &= \ln e^{\frac{1}{2}} \\ &= \log_e e^{\frac{1}{2}} \\ &= \frac{1}{2} \end{aligned}$$

Great