Name : _____

Single Logarithm and Expansion

Expand each expression :

1) $\log_e\left(\dfrac{p^8\,q^5}{r}\right) = $ _____

2) $8\log_4\left(\dfrac{y^2}{z^3}\right) = $ _____

3) $\log_8\left(\dfrac{6}{h}\right)^2$ _____

4) $\log_6\left(\dfrac{l^4}{m^5\,n^2}\right)$ _____

5) $\log_3\sqrt[4]{7c^5}$ _____

Rewrite each expression :

6) $4\,(\log_5 8 - \log_5$ _____

7) $(20\log_7 g + 12$ _____

8) $7\log_e x - 3\log_e y = $ _____

9) $8\log_3 u - (4\log_3 v + 10\log_3 w) = $ _____

10) $\dfrac{1}{5}(2\log_2 4 + \log_2 w) = $ _____