Algebra 2 Topic 6 // ***Quiz 1 Review A***

N: Key D:_____ P: 0 1 2 3 4 5 6

Based on Lessons 1-4 and Practice A and B. Do not study onlt these questions, it could be anything that we have learned so far.

1) Convert to Exp Form: $\log_3 9 = 2$

$3^2 = 9$

2) Convert to Exp. Form $\log_{27} 3 = \frac{2}{3}$

$27^{2/3} = 3$

3) Convert to Log Form: $7^2 = 49$

$\log_7 49 = 2$

4) Convert to Log Form: $5^2 = 25$

$\log_5 25 = 2$

5) Evaluate: $\log_4 1$ → $4^x = 1$

0

6) Evaluate: $\log_8 2$ → $8^x = 2$, $x = \frac{1}{3}$

$\frac{1}{3}$

7) Evaluate: $\log_3 81$ → $3^x = 81$

4

8) Evaluate: $\log_3 3$ → $3^x = 3$

1

9.) Expand: $\log 6x^3$ $= \log 6 + \log x^3$

$= \log 6 + 3\log x$

10.) Expand: $\log_3 \frac{5a^3}{b}$ $= \log_3 5a^3 - \log_3 b$

$= \log_3 5 + \log_3 a^3 - \log_3 b$

$= \log_3 5 + 3\log_3 a - \log_3 b$

11.) Expand: $\log \sqrt[3]{7zm}$ $= \log (7zm)^{1/3}$

$= \frac{1}{3}\log 7zm$

$= \frac{1}{3}\log 7 + \frac{1}{3}\log z + \frac{1}{3}\log m$

12.) Condense: $\log 12 + \log x + \log y$

$= \log 12xy$

condense:

13.) ~~Expand~~: $\log_3 6 + 3\log_3 h - \log_3 7$

$= \log_3 6 + \log_3 h^3 - \log_3 7$

$= \log_3 6h^3 - \log_3 7$

$= \log_3 \frac{6h^3}{7}$

14.) Condense: $8\log a - (\log 2 + 3\log b + 6\log c)$

$= \log a^8 - (\log 2 + \log b^3 + \log c^6)$

$= \log a^8 - \log 2b^3c^6$

$= \log \frac{a^8}{2b^3c^6}$