Practice worksheet | Exponential relationships

Logarithm laws

Name: _____ Date: _____

6 questions | 14 marks

1. Simplify $\log_2 8 + \log_2 4$. [2 marks]

2. Write $\log_5 75 - \log_5 3$ as one log and evaluate. [2 marks]

3. Expand $\log_{10}\left(\frac{x^3}{y}\right)$ for $x, y > 0$. [2 marks]

4. Solve $\log_2 x + \log_2 4 = 5$. [2 marks]

5. Solve $\log_{10}(x-1) + \log_{10}(x+1) = \log_{10} 8$. [3 marks]

6. A student claims $\log_{10} 2 + \log_{10} 3 = \log_{10} 5$. Give the correct single log. [3 marks]