Practice worksheet | Logarithmic functions

Solving exponential equations

Name: _____ Date: _____

6 questions | 15 marks

1. Solve $3^{2x-1} = 27$. [2 marks]

2. Solve $4 \cdot 5^{x} = 28$ exactly. [2 marks]

3. Solve $e^{2x} - 5e^{x} + 6 = 0$. [3 marks]

4. A quantity is $Q(t) = 80e^{-0.12t}$, with t in hours. When is $Q = 20$? [3 marks]

5. Solve $2^x = 3^{x-1}$. [3 marks]

6. Explain whether $7e^{-x} + 2 = 1$ has a real solution. [2 marks]