Practice worksheet | Exponential relationships

Graph transformations and parameter experiments

Name: _____ Date: _____

6 questions | 14 marks

1. Find the y-intercept of $y = 2^x + 4$. [2 marks]

2. State the shift from $y = 3^x$ to $y = 3^{x+2}$. [2 marks]

3. State the range of $y = 2^x - 7$. [2 marks]

4. Find the intercept and asymptote of $y = -3(2^x) + 6$. [3 marks]

5. Compare $y = 2^x$ with $y = 2^{x-1}$ at $x = 0, 1, 2$. Give the outputs of the second graph. [2 marks]

6. Explain why $y = 2^x + 3$ does not have consecutive output ratio 2, even though its exponential part does. [3 marks]