Practice worksheet | Linear and exponential models

Fitting, predicting and interpreting models

Name: _____ Date: _____

6 questions | 13 marks

1. Fit a line to $(0, 12), (3, 27), (6, 42)$. [2 marks]

2. A prediction is 80 and the observation is 77. Find the residual. [2 marks]

3. Fit $P = Ab^n$ to $P(0) = 200$ and $P(2) = 288$. [2 marks]

4. For $y = 7 + 4x$, observations at $x = 1, 2, 3$ are 12,14,20. Find residuals. [2 marks]

5. Does accurate fitting between times 2 and 8 alone justify a prediction at 80? [2 marks]

6. An exponential quantity is 60 at time 1 and 135 at time 3. Find its positive factor and value at zero. [3 marks]