Practice worksheet | Exponentials and logarithms

Fitting/interpreting exponential models

Name: _____ Date: _____

6 questions | 15 marks

1. Fit an exponential rule to $y(0)=40$ and $y(2)=90$. [2 marks]

2. Fit a model through $(1,24)$ and $(3,54)$. [2 marks]

3. Values at equally spaced times are 100,130,160. Does a pure exponential rule fit exactly? [3 marks]

4. For $P(t) = 60(0.9)^t$, interpret 60 and 0.9. [2 marks]

5. A count rises from 80 to 180 in two hours. Under an exponential model, predict the count after one hour. [3 marks]

6. An exponential rule is fitted to observations from days 0 to 10. Explain why its day-100 prediction needs caution. [3 marks]