Practice worksheet | Linear equations and graphs

Real-world linear models with digital exploration

Name: _____ Date: _____

6 questions | 18 marks

1. A taxi charges AUD 6 plus AUD 3/km. Write a rule and find the 5 km charge. [3 marks]

2. A container fills at 5 L/min from empty. Give the rule and volume at 6 minutes. [3 marks]

3. A table gives time t in minutes and volume V in litres: $(t, V) = (0, 40), (1, 34), (2, 28)$. Suggest a linear rule and predict V at $t = 5$. [3 marks]

4. For $C = 10 + 2n$, make a table for $n = 0, 1, 2, 3$. [3 marks]

5. A 30 L tank drains at 3 L/min. A student predicts -6 L at 12 minutes. Explain the problem. [3 marks]

6. Inputs 0, 1, 2 and 3 are in spreadsheet cells A2:A5. Give a B2 formula for $C = 5 + 4d$ and the expected outputs. [3 marks]