Practice worksheet | Ratio, rates and similarity

Practical proportional models and limitations

Name: _____ Date: _____

6 questions | 14 marks

1. A constant-rate model uses 3 L of cleaner for 24 m². State the rate in L/m². [2 marks]

2. Use that model to predict cleaner for 60 m². [2 marks]

3. State two conditions needed before applying that cleaner model to another room. [2 marks]

4. A prediction is 7.5 L. Cleaner comes only in 4 L containers. How many are needed? [2 marks]

5. A machine produces 30 items in 2 minutes and 75 in 5 minutes. Does a proportional model fit? Find its rule. [3 marks]

6. The same machine needs 3 minutes to warm up before producing items. Explain why total items are not directly proportional to time measured from switch-on. [3 marks]