Practice worksheet | Patterns and algorithms

Predicting and explaining patterns

Name: _____ Date: _____

6 questions | 13 marks

1. A pattern starts with 8 at step 1 and adds 5 each step. Find step 5. [2 marks]

2. Complete the table for a rule that doubles each time. [2 marks]

Step	Value
1	3
2	6
3	?
4	?

3. Linked tables seat 4 people at step 1. Each extra table adds 2 seats. How many seats do 7 linked tables provide? [2 marks]

4. A learner predicts that 21 follows 2, 6, 10, 14, 18. Check using the constant-addition rule. [2 marks]

5. A tank starts with 10 litres. Each round adds 6 litres. It holds 40 litres. How many complete rounds fill it exactly? [2 marks]

6. Make a constant-addition pattern with 9 at step 1 and 21 at step 4. State the rule and all four terms. [3 marks]