Factors and multiples topic test

Name: _____ Date: _____

12 questions | 24 marks | 30 minutes

Factor pairs, positive multiples, divisibility tests and clear factor-finding procedures.

No calculator needed.

1. Write one multiplication fact that proves 4 is a factor of 28. [1 mark]

2. List all positive factors of 12 in order. [2 marks]

3. Write the first four positive multiples of 7. [1 mark]

4. Is 246 divisible by 3? Show a divisibility check. [2 marks]

5. Which of 2, 5 and 10 divide 135 exactly? [1 mark]

6. List the positive common multiples of 4 and 6 that are at most 30. [2 marks]

7. Find all positive factor pairs of 24. [2 marks]

8. Explain why 9 is not a multiple of 6, although 3 is a factor of both numbers. [2 marks]

9. For a target of 36, should a factor-pair algorithm test candidate 6 before stopping? Explain. [2 marks]

10. A school has 36 chairs. Arrange them in rectangular rows with at least two chairs and two rows. Give every factor pair, ignoring turns. [3 marks]

11. Fill the square in 42□ with a digit so the number is divisible by both 5 and 3. Find every answer and show your checks. [3 marks]

12. Ben's factor rule tests only even candidates. Use 21 to show why the rule fails, then describe a repair. [3 marks]