Multiplication and division - topic test

12 questions | 22 marks | 30 minutes

Recall facts, show strategies and solve equal-group problems. Explain the meaning of remainders.

Equivalent correct methods earn the corresponding marks.

1. Find 8 × 7. [1 mark]

8 × 7 = 56.

Answer: 56.

2. Find 63 ÷ 9. [1 mark]

9 × 7 = 63.

Answer: 7.

3. Find 46 × 10. [1 mark]

Every digit takes a value ten times as large.

Answer: 460.

4. Find 3,500 ÷ 100. [1 mark]

35 × 100 = 3,500.

Answer: 35.

5. Use 5 × 9 = 45 to find 6 × 9. [2 marks]

Add one more group of 9: 45 + 9 = 54.

Answer: 54.

6. Write both division facts related to 6 × 8 = 48. [2 marks]

Start with the total 48 and use each factor as a divisor.

Answer: 48 ÷ 6 = 8 and 48 ÷ 8 = 6.

7. Calculate 27 × 4. Show your working. [2 marks]

20 × 4 = 80 and 7 × 4 = 28.

80 + 28 = 108.

Answer: 108.

8. Calculate 192 ÷ 6. Show useful parts. [2 marks]

180 ÷ 6 = 30 and 12 ÷ 6 = 2.

30 + 2 = 32.

Answer: 32.

9. Put 98 marbles into full bags of 6. How many full bags can be made, and how many marbles remain? [2 marks]

6 × 16 = 96.

98 − 96 = 2; 2 is less than 6.

Answer: 16 full bags and 2 marbles left.

10. Use compensation to calculate 29 × 6. [2 marks]

30 × 6 = 180.

Subtract one group of 6: 180 − 6 = 174.

Answer: 174.

11. Which method is correct for 45 × 8? Explain, then calculate. [3 marks]

Two proposed methods

Method	New calculation
A	90 × 16
B	90 × 4

Method A doubles both factors, making the product four times as large.

Method B doubles 45 and halves 8: 90 × 4 = 360.

Answer: Method B; the answer is 360.

12. A class needs 144 pencils. Pencils come in packs of 8. The class already has 5 full packs. How many more packs are needed? [3 marks]

144 ÷ 8 = 18 packs in total.

18 − 5 = 13 more packs.

Check: (13 + 5) × 8 = 144.

Answer: 13 more packs.