Multiplication and division topic test

12 questions | 24 marks | 30 minutes

Efficient whole-number calculations, missing numbers, inverse facts and interpreting remainders in practical problems.

Equivalent correct methods earn the corresponding marks.

1. Calculate 46×3. [1 mark]

$40 \times 3 = 120$ and $6 \times 3 = 18$; add them.

Answer: 138.

2. Calculate $248 \div 4$. [1 mark]

$240 \div 4 = 60$ and $8 \div 4 = 2$.

Answer: 62.

3. Find the square: $\square \times 7 = 91$. [1 mark]

$91 \div 7 = 13$.

Answer: 13.

4. Calculate 38×14. Show partial products. [2 marks]

$38 \times 10 = 380$; $38 \times 4 = 152$.

$380 + 152 = 532$.

Answer: 532.

5. Calculate $432 \div 6$. Show your method. [2 marks]

$420 \div 6 = 70$ and $12 \div 6 = 2$.

Answer: 72.

6. Write both division facts linked to $12 \times 15 = 180$. [2 marks]

Use the product as each dividend.

Answer: $180 \div 12 = 15$ and $180 \div 15 = 12$.

7. Find the square: $\square \div 8 = 19$. Check your answer. [2 marks]

$19 \times 8 = 152;\ 152 \div 8 = 19$.

Answer: 152.

8. Find the square: $168 \div \square = 14$. Check your answer. [2 marks]

$14 \times 12 = 168;\ 168 \div 12 = 14$.

Answer: 12.

9. Seventy-four students need minibuses holding twelve students each. How many minibuses are needed? [3 marks]

$12 \times 6 = 72$, leaving two students.

One more minibus is needed to seat everyone.

Answer: 7 minibuses.

10. A farmer has 65 eggs. Each full carton holds six eggs. How many full cartons can be filled, and how many eggs remain? [2 marks]

$6 \times 10 = 60$; $65 - 60 = 5$.

Five eggs are not enough for another full carton.

Answer: 10 full cartons, with 5 eggs left.

11. Amir calculates 27×16 as $27 + 162 = 189$. Explain the error and correct it. [3 marks]

Sixteen is ten plus six.

$27 \times 10 + 27 \times 6 = 270 + 162 = 432$.

Answer: The tens contribution should be 270. The answer is 432.

12. A school buys 18 boxes of pencils, with 24 pencils in each box. It shares all pencils equally among nine classes. How many pencils does each class receive? Show a useful way to group the calculation. [3 marks]

$18 \times 24 = 432$ pencils altogether.

$432 \div 9 = 48$. Alternatively, eighteen boxes split into nine groups gives two boxes per class: $2 \times 24 = 48$.

Answer: 48 pencils per class.