Efficient strategies

6 questions | 9 marks

Equivalent correct methods earn the corresponding marks.

1. Use a near-round number to find 19×7. [2 marks]

$20 \times 7 = 140$.

Remove one group of 7: $140 - 7 = 133$.

Answer: 133.

2. Use doubling and halving to find 25×8. [1 mark]

$25 \times 8 = 50 \times 4 = 100 \times 2 = 200$.

Answer: 200.

3. Find $84 \div 4$ using $80 + 4$. [1 mark]

$80 \div 4 = 20$; $4 \div 4 = 1$.

$20 + 1 = 21$.

Answer: 21.

4. Find $2 \times 7 \times 5$ by grouping useful factors. [1 mark]

$2 \times 5 = 10$, so the product is $7 \times 10 = 70$.

Answer: 70.

5. A school buys 18 packs of 5 pencils. Show two different ways to find the total. [2 marks]

Method 1: $10 \times 5 + 8 \times 5 = 50 + 40 = 90$.

Method 2: $18 \times 10 \div 2 = 180 \div 2 = 90$.

Answer: 90 pencils.

6. A learner changes 16×6 into 32×3. Is this valid? Explain and calculate. [2 marks]

One factor is doubled and the other halved, so the product stays the same.

$32 \times 3 = 96$; check $16 \times 6 = 10 \times 6 + 6 \times 6 = 60 + 36 = 96$.

Answer: Yes; both products equal 96.