Multiplication/division by multiples of powers of ten

6 questions | 10 marks

Equivalent correct methods earn the corresponding marks.

1. Calculate $0.46 \times 1,000$. [1 mark]

Each digit has 1,000 times its original value.

Answer: 460.

2. Calculate $73.5 \div 100$. [1 mark]

Divide the value by 100.

Answer: 0.735.

3. Calculate 4.25×20. [2 marks]

$4.25 \times 2 \times 10 = 8.5 \times 10 = 85$.

Answer: 85.

4. Calculate $18.6 \div 60$. [2 marks]

$18.6 \div 6 \div 10 = 3.1 \div 10 = 0.31$.

Answer: 0.31.

5. Fifty identical pieces of ribbon are each 2.4 m long. Find their total length. [2 marks]

$2.4 \times 5 \times 10 = 12 \times 10 = 120$.

Answer: 120 m.

6. Explain why $84 \div 20$ is the same as $84 \div 2 \div 10$, then calculate it. [2 marks]

$84 \div 2 = 42$ and $42 \div 10 = 4.2$.

Answer: $20 = 2 \times 10$, so dividing by each factor divides by 20 overall; the answer is 4.2.