

Problem solving: swimming events - answers

1.

Step 1 Read and understand the problem.	A swimming pool is 50 metres long. How many lengths would be swum in a 1,500-metre race?
Step 2 Work out what calculations you need to do.	This is a division. How many 50s are there in 1,500?
Step 3 Carry out the calculations and answer the problem.	$1,500 \div 50$ Because these are whole numbers ending in zero, you could take a zero off the end of the numbers to make them easier to work with. $150 \div 5 = 30$ 30 lengths would be swum in a 1,500-metre race.
Step 4 Check your answer works.	Check by multiplication: $30 \times 50 = 1,500$ The answer is correct.

2.

Step 1 Read and understand the problem.	A swimming pool is 25 metres long. How many lengths would be swum in a 4×100 -metre relay event?
Step 2 Work out what calculations you need to do.	4×100 -metre relay means that 4 people swim 100 metres each. There are several ways of doing this, as with most problems. One way would be to find out how many 25-metre lengths make 100 metres. This would give you the number of lengths each person needed to swim. So divide 100 by 25. Then multiply the result by 4 swimmers to get the total number of lengths swum.
Step 3 Carry out the calculations and answer the problem.	Each swimmer will do $100 \div 25 = 4$ (lengths). So 4 swimmers will do $4 \times 4 = 16$ lengths. 16 lengths would be swum in the relay.
Step 4 Check your answer works.	Check by multiplication: $16 \times 25 = 400$ m $4 \times 100 = 400$ m The answer is correct.