

# Indulge in mind exercises

Everyday I swim the same number of laps of the pool. After completing a certain number of laps, I have done 20% of the total, and after one more lap I have completed 25% of the total. How many laps do I swim each day?

In a group of 40 students, 20 play tennis, 19 play volleyball and 6 play both tennis and volleyball. What is the number of students who play neither tennis nor volleyball?

Sixteen football teams play in a tournament. They are first divided into four groups of four teams each. In each group each team plays each other once. The best two teams from each group then play in a knockout tournament (when a team loses a game it is eliminated) to decide the overall winner. How many matches must be played?



A cyclist travels uphill from A to B, a distance of 24km at an average speed of 12km/h. On the return journey downhill, his average speed is 36km/h. What is his average speed, in kilometres per hour, for the whole journey?

## Australian Mathematics Competition

Thursday 5 August 2010

see your maths teacher to enter