Problem of the Week
Problem A and Solution
Tri Kids Race

Problem

A triathlon is a race that has three components. Racers first complete a swimming component, then they complete a biking component, and finally they complete a running component.

In the Tri Kids race, the racers first swim 100 m. They then travel 25 m to the bicycle area. The racers then ride their bike in a 3 km long loop back to the bicycle area. The bicycle area is right beside the track. The racers then run 3 laps of the track to finish the race. One lap of the track is 400 m.

In the Tri Kids race, what is the total distance the racers have to cover, from start to finish?

Solution

To calculate the total distance, we can convert all measurements to metres. The distance travelled on their bike is 3 km. Since 1 km is equal to 1000 m, then 3 km is equal to $3 \times 1000 = 3000$ m.

To calculate the distance the racers have to run, we multiply $3 \times 400 = 1200$ m.

We can add up the distances travelled in the swim, transition to the bicycle area, bike, and run. The total distance covered is: $100 + 25 + 3000 + 1200 = 4325$ m.

Alternatively, we can enumerate the distances travelled in a table:

Race Component	Distance of Component	Total Distance Travelled
Swim	100 m	100 m
Transition	25 m	125 m
Bike	3 km = 3000 m	3125 m
Lap 1	400 m	3525 m
Lap 2	400 m	3925 m
Lap 3	400 m	4325 m