Let's Practice!

4. The table below shows the running times of two different athletes during the 2015 Comrades Marathon at various points along the route. One of the athletes won the marathon and the other came second.

Athlete A			Athlete B		
Place on the route	Distance run (km)	Total running time (h, min, s)	Place on the route	Distance run (km)	Total running time (h, min, s)
Lion Park	15,9	01:08:07	Lion Park	15,9	01:05:26
Camperdown	26,9	01:55:19	Camperdown	26,9	01:50:39
Halfway	45	03:13:20	Halfway	45	03:05:14
Pinetown	68,9	05:01:32	Pinetown	68,9	04:54:45
Mayville	82,3	06:03:07	Mayville	82,3	06:02:45
Finish	89,3	06:36:03	Finish	89,3	06:37:30

4.1 Who out of the two athletes came in first?

4.2 How far is it from Pinetown to the Finish?

4.3 How long (in hours, minutes and seconds) did it take Athlete A to run from Lion Park to Halfway?

4.4 How long (in hours, minutes and seconds) did it take Athlete B to run from Camperdown to Mayville?

4.5 Approximately where in the race did Athlete A overtake Athlete B? Explain your answer.

Answers

4.1 Runner A

4.2 Distance to Pinetown = 68,9 km
Distance to Finish = 89,3 km

∴ Distance from Pinetown to Finish
= 89,3 km - 68,9 km
= 20,4 km

4.3 Running time at Lion Park = 1 h 8 min 7 s
Running time at Half Way = 3 h 13 min 20 s

∴ 3 h ; 13 min ; 20 s
 - 1 h ; 8 min ; 7 s
 2 h ; 5 min ; 13 s

4.4 Running time at Camperdown = 1 h 50 min 39 s
Running time Mayville = 6 h 2 min 45 s

5   60 + 2 = 62 min
∴ 6 h ; 2 min ; 45 s
 - 1 h ; 50 min ; 39 s
 4 h ; 12 min ; 6 s

4.5 Between Mayville and the Finish, i.e. Runner B came through Mayville in a quicker time than Runner A, but Runner A then finished the race before runner B. So Runner A passed Runner B somewhere between Mayville and the Finish.