a) Denver is running a 10km race. Their personal best is 1 hour and 30 seconds. As they pass the 7km marker, their watch says 44 minutes and 13 seconds. At what speed, in metres per second, must they run the remainder of the race to set a new personal best?	a) Denver is running a 10km race. Their personal best is 1 hour and 30 seconds. As they pass the 7km marker, their watch says 44 minutes and 13 seconds. At what speed, in metres per second, must they run the remainder of the race to set a new personal best?
b) Elliott is driving to a meeting. The meeting is 130 miles from their house and it begins at 10 00. They leave the house at 07 30, and travel at an average speed of 40mph for the first 45 minutes. Having reached the motorway, their average speed increases to 65mph for the next 1 hour and 12 minutes. At what average speed must they travel for the remainder of the journey to get to the meeting on time?	b) Elliott is driving to a meeting. The meeting is 130 miles from their house and it begins at 10 00. They leave the house at 07 30, and travel at an average speed of 40mph for the first 45 minutes. Having reached the motorway, their average speed increases to 65mph for the next 1 hour and 12 minutes. At what average speed must they travel for the remainder of the journey to get to the meeting on time?
c) Finn is running a 12km race. Their personal best is 59 minutes and 25 seconds. As they pass 9km, their fitness tracker buzzes and says that they have an average pace of 5:13 per kilometre. At what average pace, in minutes and seconds per kilometre, must they run the remainder of the run to set a new personal best?	c) Finn is running a 12km race. Their personal best is 59 minutes and 25 seconds. As they pass 9km, their fitness tracker buzzes and says that they have an average pace of 5:13 per kilometre. At what average pace, in minutes and seconds per kilometre, must they run the remainder of the run to set a new personal best?