

MEASURING TIME

MARKSCHEME+EXPERT SOLUTION

- 1 Two digital stopwatches X and Y, which record in minutes and seconds, are used to time a race.

The readings of the two stopwatches, at the start and at the end of the race, are shown.

	start	end
stopwatch X	00:00	00:40

Total time=40 seconds

	start	end
stopwatch Y	01:30	02:20

Total time= 50seconds

Which statement about the time of the race is correct?

- A Both stopwatches record the same time interval.
- B Stopwatch X recorded 10s longer than stopwatch Y.
- C Stopwatch Y recorded 10s longer than stopwatch X.
- D Stopwatch Y recorded 50s longer than stopwatch X.

Time difference
=50-40=10 seconds.
Hecnce option C is correct

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- 2 A student uses a stopwatch to time a runner running around a circular track. The runner runs two laps (twice around the track). The diagrams show the reading on the stopwatch when the runner starts running, at the end of the first lap, and at the end of the second lap.

Time taken for the second lap=02:03-01:13=50s. Hence the answer is 0min 50s



reading when runner starts



reading at end of first lap



reading at end of second lap

What is the time taken for the runner to run the second lap?

- A 0 min 50 s
- B 1 min 10 s
- C 1 min 13 s
- D 2 min 03 s

- 3 Two digital stopwatches X and Y, which record in minutes and seconds, are used to time a race. The readings of the two stopwatches, at the start and at the end of the race, are shown.

	start	end
stopwatch X	00:00	00:40
	start	end
stopwatch Y	01:30	02:20

Total time=40 seconds

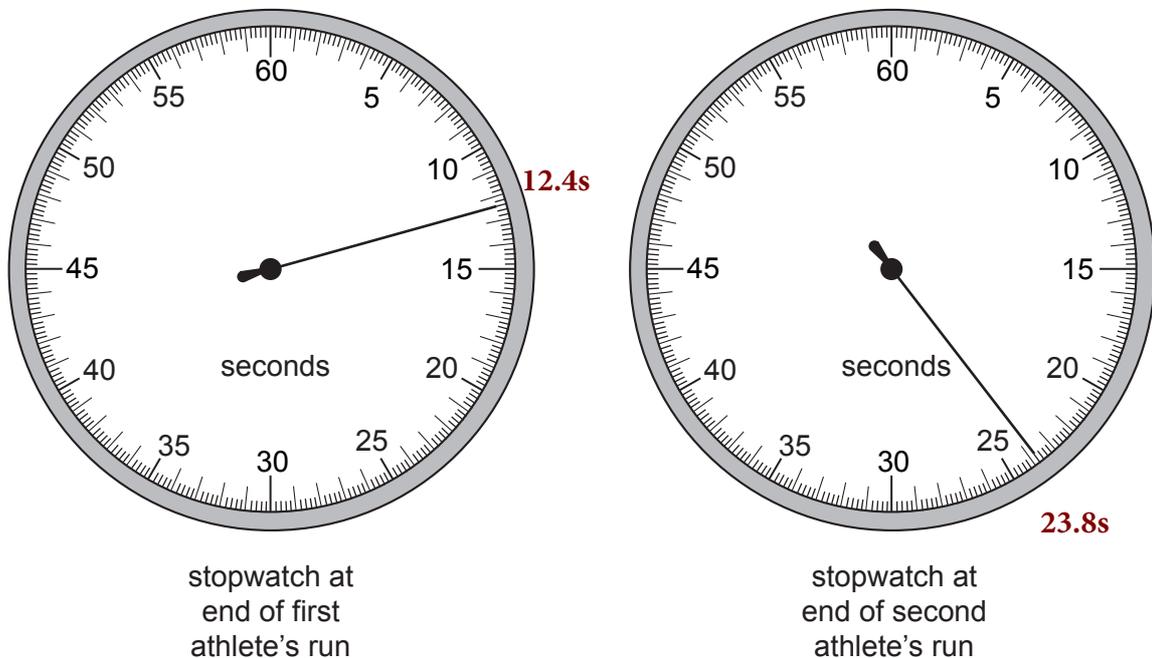
Total time= 50seconds

**Time difference
=50-40=10 seconds.
Hecnce option C is correct**

Which statement about the time of the race is correct?

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- D Stopwatch Y recorded 50 s longer than stopwatch X.

- 4 A stopwatch is used to time an athlete running 100 m. The timekeeper forgets to reset the watch to zero before using it to time another athlete running 100 m.



How long does the second athlete take to run 100 m?

- A 11.2s
- B 11.4s
- C 12.4s
- D 23.8s

The time taken is: 23.8s-12.4s=11.4s