

CW 1.2 Graphing Motion Example (AP B 1982)

The first 10 m of a 100 m race are covered in 2 s by a sprinter who starts from rest and accelerates at a constant rate. The remaining 90 m are run at a constant velocity.

- a) Determine the sprinter's acceleration during the first 2 s.
- b) Determine the sprinter's velocity after the first 2 s.
- c) Determine the total time to run the full 100 m.
- d) Draw the displacement-time graph of the sprinter.

