

Ch 1&2 Startup Assignment: Answers & HW Hints

Unit 1: Motion Basics

Answers

1a. $10^9 \mu\text{m}$

3a. 160 rods

12a. 52.56 min

Q2a. -

b. +

c. 0

d. -

e. Twice

($t=1\text{s}$ and 3s)

3. 12.5m

4. 5.55s

5a. 0m

b. -2m

c. 0m

d. 12m

e. 12m

f. 7m/s

9. 128km/h

19. 20m/s^2

22a. 1.1m/s

b. 0.0061m/s^2

23a. 1.6m/s

b. 17.6m/s

Ch. 2 #4

Since you're told how much the record is beaten in terms of km/h, you must start by calculating the original record's km/h. Then simply add 19km/h to the value for the original record's speed, and finish by working backwards to calculate time. (Note that the answer is given in seconds, not hours.)

Ch. 2 #9

Begin by calculating the total distance and time moved during the first two legs of the trip. Then determine the necessary remaining speed based on the remaining distance and time.