

Analysis and Conclusions

Show Work Here

1. (d_1) Calculate the acceleration to the _____ meter line.

(Note: When the racer started from rest, the original velocity is 0.)

Acceleration to _____ meter: _____

2. (d_2) Calculate the acceleration between the _____ m and _____ m line.

Acceleration between _____ m and _____ m: _____

3. (d_1) Calculate the overall acceleration to the _____ meter line.

Acceleration to _____ meter: _____

4. Compare the acceleration first section (d_1) with the acceleration in the second section (d_2).
Which was higher? Explain why this is so.

5. Based on the investigation, what 2 measurements at minimum must be made in order to calculate the acceleration of an object that begins at rest?

Critical Thinking and Application

1. What could be 3 hidden variables in this investigation might make it difficult to obtain consistent results in the races?
2. Can acceleration ever be negative? Explain your answer.
3. Suppose the acceleration of the racer were calculated as zero. Assuming the racer is not at rest, what must be true about its motion?
4. What is the acceleration of an object that takes 7 sec. to change its velocity from 25 m/sec. to 11 m/sec.? Show your Work