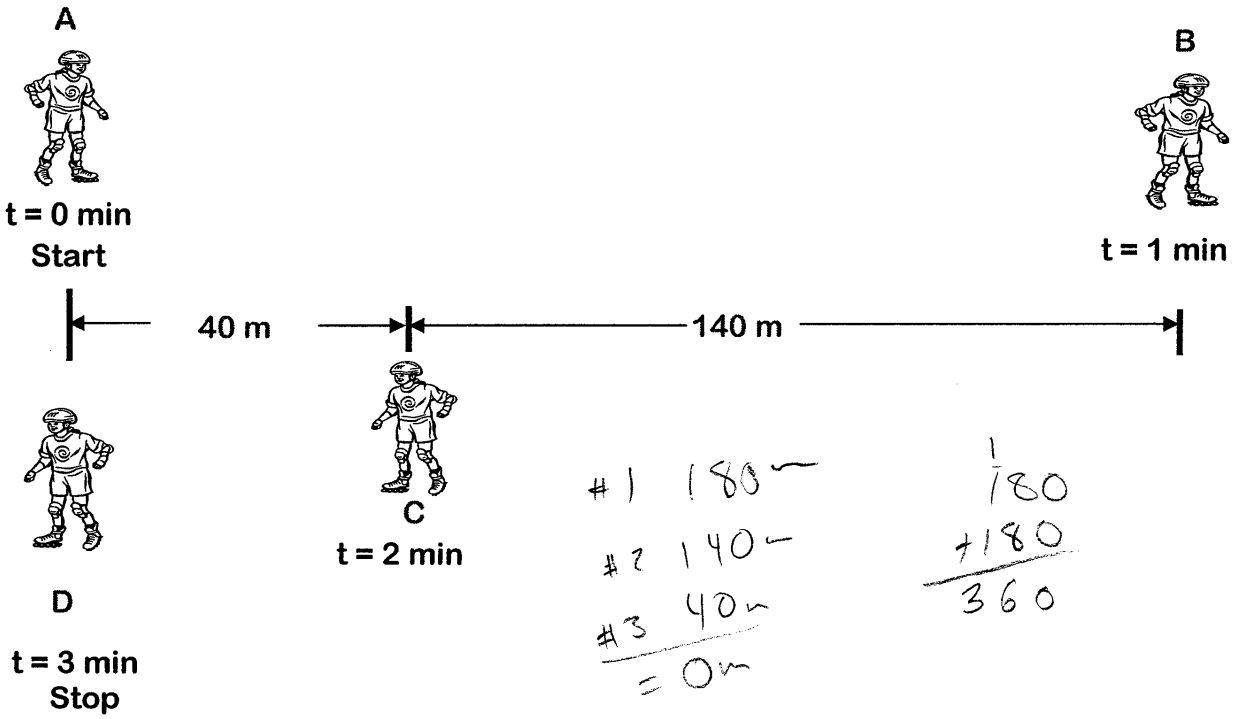
4 min 5

PhysicalScience

PSc.1.1.1 Explain motion in terms of frame of reference, distance, and displacement.

A student is practicing for her big race. At each of the indicated times, she turns around and reverses the direction of travel or changes her speed until she stops at point D. Based on the diagram, how does the student's displacement at point D compare to the total distance travelled? Explain your answer using the terms frame of reference, distance and displacement. Also, support your answer with mathematical reasoning. he has traveled a total Distance of 360 m in 3 min and is exactly where he started



#1 180 –
#2 140 –
#3 40 m
= 0 m

180
+180
360