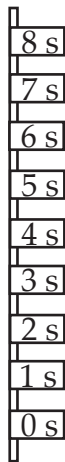


COMPARING TRACKS A

**Track 1
(long)**



**Track 2
(short)**



Walk the length of the long track and the short track.

Walk at a speed that will bring you to each number as it is called out. (The whole walk will take 8 seconds.)

The distance from the start (0 seconds) to each of the numbers is recorded in the data tables. Fill in the rest of both data tables.

Make position-versus-time graphs for both tracks.

1. Compare your positions (x) on the two tracks after 8 seconds.

2. Compare your velocities (\bar{v}) as you traveled on the two tracks.

3. Compare your change of velocity ($\Delta\bar{v}$) as you traveled the two tracks.

4. Discuss the difference between constant velocity and acceleration.

COMPARING TRACKS B**Track 1 (long)**

t (s)	x (m)	Δx (m)	Δt (s)	\bar{v} (m/s)	$\Delta \bar{v}$ (m/s)	a (m/s ²)
0	0					
1	0.25					
2	1.0					
3	2.25					
4	4.0					
5	6.25					
6	9.0					
7	12.25					
8	16.0					

Track 2 (short)

t (s)	x (m)	Δx (m)	Δt (s)	\bar{v} (m/s)	$\Delta \bar{v}$ (m/s)	a (m/s ²)
0	0					
1	0.5					
2	1.0					
3	1.5					
4	2.0					
5	2.5					
6	3.0					
7	3.5					
8	4.0					

