12/19 **Acceleration** **#7**

Agenda

- Complete the acceleration graph
- journal check
- Return test

Complete your acceleration graphs and answer the questions:

Figure 1

1. Compare your positions on the 2 tracks after 8 seconds.
2. Compare your speeds on the track after 8 seconds.
3. Compare your change in speeds as you travelled the 2 tracks.

Track 1

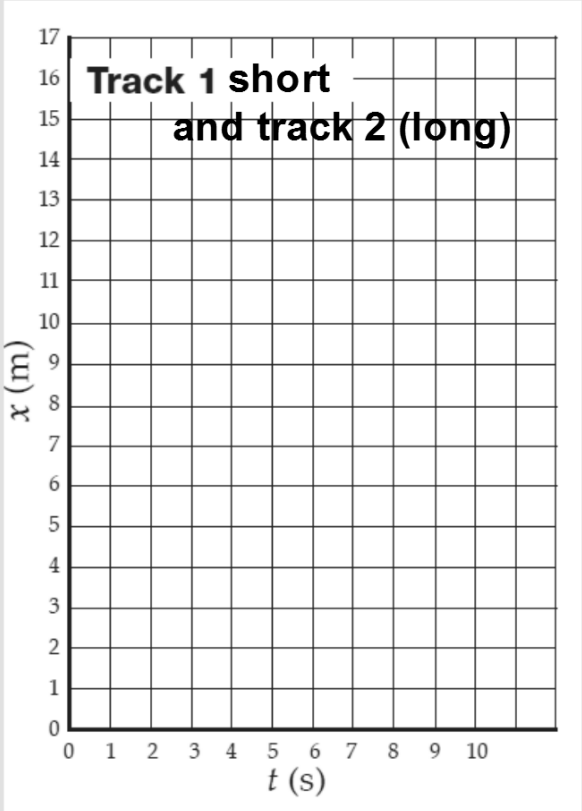
t (s)	*x* (m)
0	0
1	0.5
2	1.0
3	1.5
4	2.0
5	2.5
6	3.0
7	3.5
8	4.0

Track 2

t (s)	*x* (m)
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

Learning Target: I can demonstrate and describe the difference between constant velocity and acceleration

12/19 Acceleration #7



Track 1

t (s)	x (m)
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

Track 2

t (s)	x (m)
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 1 _____
track 2 .....

$$a = \frac{\Delta v}{\Delta t}$$

Learning Target: I can demonstrate and describe the difference between constant velocity and acceleration

12/19 Acceleration #7

When physicists think about how fast an object is moving they study how far it moves in a length of time (speed) and *the direction it travels.* Speed and direction together is velocity

We calculate velocity by dividing the change in position by change in time

This is for your information only in our work we will use the terms *speed* and *velocity* interchangeably.

$$a = \frac{\Delta v}{\Delta t}$$

Learning Target: I can demonstrate and describe the difference between constant velocity and acceleration

12/19 Acceleration #7

Acceleration (a) is a change in speed (velocity) per unit of time.

Figure 1

If there is no change in speed per unit of time then the object is moving at a constant speed.

$$a = \frac{\Delta v}{\Delta t}$$

Learning Target: I can demonstrate and describe the difference between constant velocity and acceleration

12/19 Acceleration #7

Test returned

Test re-take

1. Bring your notecard
2. Bring the test WITH CORRECTIONS
3. Re-takes will be Tuesday lunchtime 12/20 or Tuesday after school
4. you will not be allowed to use the notecard on the re-take.

Learning Target: I can demonstrate and describe the difference between constant velocity and acceleration