

## Group Quiz 2.3 – Linear Kinematics

Name \_\_\_\_\_

1. A car going 11.0 m/s accelerates at 0.890 m/s/s for 15.0 s. How far does it go in this time?
2. A runner accelerates from rest at 3.40 m/s/s to a final velocity of 9.40 m/s. What distance do they go?
3. A tennis ball cannon rolls to a stop covering a distance of 3.80 m in 7.20 s. What was its initial velocity?
4. A car covers 113 m accelerating at 0.640 m/s/s for 14.0 s. What was its initial velocity?

5. A car covers 212 m in 13.0 seconds, and is going 14.0 m/s at the end. What is its acceleration during this time?

6. A car going 20.0 m/s accelerates at 0.920 m/s/s. What time does it take to cover 123 m?

7. An airplane reaches a speed of 52.0 m/s from rest on a runway that is 890. m long. What is its speed when it has gone only 100. m down the runway?

8. A train decelerates from 32.0 m/s to 21.5 m/s in 41.0 seconds. What time did it take it to cover 500. meters from the beginning?