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Physics Average Velocity/Acceleration Worksheet B

Show all of your work for the following problems. No work=No credit (even if the answer is correct)

1. A family has 4 hours to complete a 265 mile trip. How fast must they travel in order to complete the trip on time?
2. Your average velocity to the store was 40 mph. The store is 15 miles away. How long does it take you to get to the store?
3. How far will you travel in 3.5 hours if you average 90 km/hr?
4. In the 1988 Summer Olympics, Florence Griffith Joyner set the then women’s world record in the 100 meter dash. She completed the race in 9.79 seconds. What was her average velocity?
5. How far will you travel if you walk for 150 minutes at an average velocity of 3 mph?
6. A Nolan Ryan fastball is thrown at a speed of 40.5 m/s. How long does it take to reach home plate 18.44 meters away?
7. A bicyclist has an average velocity of 25 km/hr. How far will she travel in 2.5 hours?
8. A dog accelerates from 2 m/s to 5 m/s in 1.3 seconds. If the rate of acceleration is constant, what is the dog’s acceleration?
9. Dale Earnhardt Jr. finishes his pit stop and leaves the pits with an acceleration of 10 m/s/s for 4 seconds. How fast is he going after his acceleration from the pits?
10. What is the average velocity of a lab cart that goes 164 cm in .754 seconds?
11. A ball starts from rest and rolls down a ramp with an acceleration of 40 cm/s/s. How many seconds will it take to reach a speed of 500 cm/s?
12. A car is able to accelerate from 25 mi/hr to 55 mi/hr in 4.25 seconds. What is its acceleration?
13. A car accelerates from 10 m/s to 25 m/s at a rate of 3 m/s2. How long did this take?
14. A horse is walking at 1 m/s. It then accelerates at a rate of 2 m/s2 for 5 seconds. How fast is it traveling now?
15. It takes 4 seconds for a car to slow down from 20 m/s to 2 m/s. What was its rate of acceleration?