

Name _____

Period _____

Date _____

Directions: Read each question carefully. Write out the formula used for each question. Show all your work. Write your answer AND circle your answer. Write answers in two significant figures. Points will be deducted for not following directions.

1. If it takes you 45 seconds to run 340 m, what is your average speed?
2. How long does it take a skier to travel 650 m going 18.5 m/s?
3. What is the acceleration of a rocket ship in outer space that takes 5.0 seconds to increase its velocity from 1,240 m/s to 1,300 m/s?
4. How much does the velocity of a car increase if it accelerates uniformly at 2.5 m/s^2 for 5 seconds?
5. A car is going 8.0 m/s on an access road into a highway, and then accelerates at 1.8 m/s^2 for 7.2 seconds. How fast is it then going?
6. How far does a car travel if it is going 4.0 m/s and accelerates at 3.5 m/s^2 for 5 seconds?
7. What is the acceleration of a rocket that speeds up uniformly from rest and travels 650 m in the first 12 seconds?
8. If a car is going at 12 m/s, how long will it take it to reach a speed of 26 m/s if it accelerates at 2.2 m/s^2 ?

9. How far does a car travel in speeding up from 4.5 m/s to 22 m/s if it accelerates at 3.5 m/s^2 ?

10. A car is moving at 19 m/s, then slams on its brakes, slowing down to 8.4 m/s, leaving 24.6 m long skid marks. What was its acceleration?

11. What is the acceleration of a rocket-driven sled that travels 360 m in 8.3 seconds, with an initial speed of 22 m/s?

12. A bicycle averages 4.5 m/s while traveling for 10 minutes. How far does it travel?

13. What is the average speed of a car that travels 4.6×10^4 m in 1 hour?

14. What is the acceleration of a car that speeds up from 12 m/s to 30 m/s in 15 seconds?

15. If a truck can accelerate at 3.2 m/s^2 , how long will it take to speed up from 15 m/s to 22 m/s?

16. How far does a motorcycle travel if it starts at rest and is going 22 m/s after 15 seconds?

17. What is the acceleration of a car that reaches a velocity of 10 m/s from rest while traveling 240 m?