

Name \_\_\_\_\_  
Science \_\_\_\_\_

Date \_\_\_\_\_  
Force & Motion WS

What do the following units represent? Use D for distance, T for time, S for speed, or A for acceleration.



- \_\_\_\_\_ 1. 14 km      \_\_\_\_\_ 4. 6 hours      \_\_\_\_\_ 7. 1.4 m  
\_\_\_\_\_ 2. 30 m/s      \_\_\_\_\_ 5. 12 cm/s<sup>2</sup>      \_\_\_\_\_ 8. 3.2 sec  
\_\_\_\_\_ 3. 34 min      \_\_\_\_\_ 6. 150 mm      \_\_\_\_\_ 9. 3 km/hr/sec

**Solve each problem using the 3 step method! Be sure to show your work!**

10. Yesterday, Mary roller skated for 3.5 hours at a speed of 8 km/h. How many kilometers did she skate?



11. At exactly 2:00 pm, Speedy the Snail crawls onto a meter stick at the 10 cm mark. If he reaches the 65 cm mark at exactly 2:10 pm, what is his speed?



12. A steel ball whose mass is 2.0 kg is rolling at a rate of 2.8 m/s. What is its momentum?



13. How much force is needed to accelerate a 100 kg mass at a rate of 2.5 m/s<sup>2</sup>?

14. Toon Train is traveling at the speed of 10 m/s at the top of a hill. Five seconds later it reaches the bottom of the hill and is moving at 30 m/s. What is the rate of acceleration of Toon Train?

15. Monster Mike's truck decelerates from 72 m/s to 0 m/s in 6 seconds. What is his rate of acceleration?

