**FINDING VELOCITY, ACCELERATION AND TIME**

1. Ben was roller blading down a hill. At the top of the hill, he had a velocity of 0.5 m/s. At the bottom of the hill, he had a velocity of 4 m/s. It took him 5 seconds to go down the hill. What was his average acceleration?
2. Raymond was skiing down a slope. He accelerated at a rate of 5 m/s2, going from a velocity of 2 m/s to a velocity of 10 m/s. How long was he on the slope for?
3. A car traveling north with a velocity of 30 m/s slows down to a velocity of 10 m/s within 10 seconds. What is the car’s acceleration?
4. Falling objects drop with an average acceleration of 9.8 m/s2. If an object falls from a tall building, how long will it take before it reaches a speed of 49 m/s?
5. **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. 14 mi \_\_\_\_\_ 10. 1.4 m \_\_\_\_\_

2. 30 m/s \_\_\_\_\_ 5. 12 cm/s2 \_\_\_\_\_ 8. 3.2 sec \_\_\_\_\_ 11. 6 cm/min/sec \_\_\_\_\_

3. 34 min \_\_\_\_\_ 6. 150 mph \_\_\_\_\_ 9. 25 ft \_\_\_\_\_ 12. 3 km/hr/sec \_\_\_\_\_

**Solve each problem! Be sure to show your working out!**

1. Goldie Goldfish, a speed swimmer, loves to race around the park’s pond, which is 0.5 miles around. If she can swim 20 laps around the track in 2 hours, what is her average speed?
2. It takes Stu, a slimy slug, 20 minutes to travel from his favourite bush to the local trash can (a trip of 30meters), how far can he travel in 1 hour (60 minutes)?
3. 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?
4. If it takes Leaping Louie 5 minutes to jump 3 blocks, how long will it take for him to jump 15 blocks?
5. 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?
6. Pete the Penguin loves to sled down his favourite hill. If he hits a speed of 50 m/s after 5 seconds, what is his rate of acceleration? Hint: He starts at 0 m/s at the top of the hill.
7. Monster Mike’s truck decelerates from 72 m/s to 0 m/s in 6 seconds. What is his rate of acceleration?