

## Formula Challenge

Name \_\_\_\_\_

**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/s <sup>2</sup> | _____ 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 work!**

13. 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?
14. It takes Stu, a slimy slug, 20 minutes to travel from his favorite bush to the local trash can (a trip of 30 meters), how far can he travel in 1 hour (60 minutes)?
15. 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?
16. If it takes Leaping Louie 5 minutes to jump 3 blocks, how long will it take for him to jump 15 blocks?
17. If Bert the Bat travels eastward at 40 mph with a tail wind of 6 mph, what is his actual speed?
18. 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?
19. Pete the Penguin loves to sled down his favorite 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.
20. Monster Mike's truck decelerates from 72 m/s to 0 m/s in 6 seconds. What is his rate of deceleration?