Name _____ Date _____ Period _____

Speed and Circumference

A car's speedometer calculates the speed of a car based on the tire diameter and the number of rotations of the axle. Each rotation moves the wheel in one complete circle.

To find the speed you must multiply the circumference by the number of rotations and then divide by the time.

Speed = (Circumference X # of rotations) / Time

1. A car with a tire diameter of 15 inches drives for 0.5 hours. During this time the axle rotates 100 times. What is the speed of the car (include units)?

2. A car's axle rotates 2000 times in 1 hour. The tire's diameter is 21 inches. What is the speed?

3. If a tire's circumference is 94.25 inches, what is the diameter of the tire?

4. Why is pi important in our everyday lives? Give at least 3 examples. Answer in Complete Sentences.