

Speed

Did You Know? Car manufacturers are constantly testing and improving cars in many different ways. In the future, cars will be able to travel more miles on less fuel. Researchers test different changes in cars, such as using lighter materials and making different engines.

The table shows the results of a test to determine the relation among distance, rate, and time.

Car Type	Distance (in.)	Inches per Second	Seconds
Car A	24	6	4
Car B	28	7	4
Car C	24	8	3

A toy company tests 3 different wheels for a toy car. The people making the toy measured the distance each car traveled with different wheels.

- 1 Car A travels 24 inches in 4 seconds. It travels the same number of inches each second. How many inches does it travel in 1 second? Write an equation and complete the table.

6 inches per second; Sample answer: $24 \div 4 = ?$

- 2 Car B travels 28 inches in 4 seconds. It travels the same number of inches each second. How many inches does it travel in 1 second? Write an equation and complete the table.

7 inches per second; Sample answer: $28 \div 4 = ?$

- 3 Car C travels 24 inches in 3 seconds. It travels the same number of inches each second. How many inches does it travel in 1 second? Write a multiplication equation and a division equation to solve. Then complete the table.

8 inches per second; Sample answer: $24 \div 3 = ?$;

$24 = ? \times 3$

- 4 **Extension** Which toy car will travel the farthest in 4 seconds? Explain.

Car C; Sample answer: Car C travels 8 inches per

second; $8 \times 4 = 32$ inches. Car A travels 24 inches

in 4 seconds and Car B travels 28 inches in 4 seconds.

$32 > 28$ and $32 > 24$.