



Forces & Motion

Name _____ Class _____ Date _____

1 A car travels 100 miles in two hours at a speed of 50 miles per hour. **Speed** is equal to the **distance** divided by _____.
Circle the answer.

- mileage time
- meters friction



6 In the image below, what **forces** are **working against the man** as he tries to push the rock?

- a. friction and momentum
- b. gravity and friction
- c. gravity and temperature



2 Using the formula below, calculate the **acceleration rate** of a car that goes from 0 mph to 60 mph in 10 seconds.

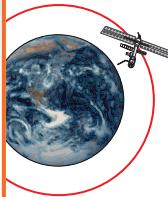
$$\text{acceleration} = \frac{\text{final speed} - \text{initial speed}}{\text{time}}$$

7 To calculate the amount of **force**, you multiply **mass x acceleration**. Knowing this, how could the amount of **force** be **maintained** if **mass is decreased**?

- a. increase acceleration



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PREVIEW

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al force

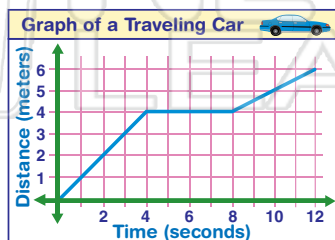
4 M
S
C

pushes
boat goes
Newton's

$$\text{speed} = \frac{\text{distance}}{\text{time}}$$

5 Using the graph below, describe the car's movement **between 4 seconds and 8 seconds**. Circle the answer letter.

- a. stopped in traffic
- b. moving slowing
- c. accelerating



10 The **tendency** for objects to have a **difficult time stopping** once they are **in motion** is called _____.

- force momentum
- velocity acceleration





Forces & Motion - Answer Key

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- 1 A car travels 100 miles in two hours at a speed of 50 miles per hour. **Speed** is equal to the **distance** divided by _____.
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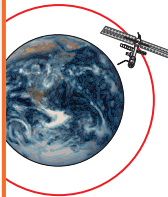
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- 3 Use the



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al force

pushes
boat goes
Newton's

- 4 M
S
C

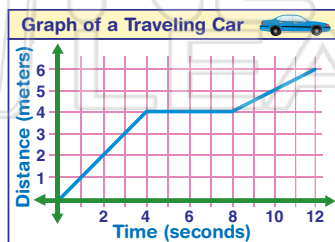
44 mph x 30 seconds = 1,320 miles

$$\text{speed} = \frac{\text{distance}}{\text{time}}$$

- a. energy is always conserved
b. an object in motion stays in motion
c. for every action there is an equal and opposite reaction

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b. moving slowing
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force momentum
velocity acceleration

