



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.

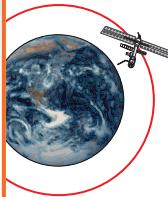
$$\text{acceleration} = \frac{\text{final speed} - \text{initial speed}}{\text{time}}$$

- 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



- 3 U
tr



PREVIEW

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al force

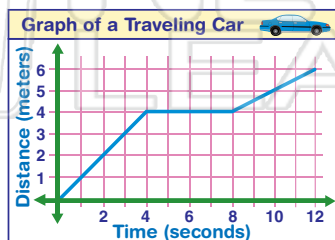
pushes
boat goes
Newton's

- 4 M
S
C

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

- 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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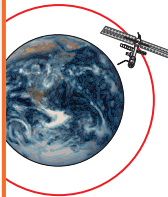
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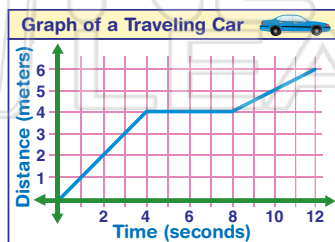
- 4 M
S
C

44 mph x 30 seconds = 1,320 miles **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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velocity acceleration

