Name: Date: Score: / 8

# Speed and Acceleration: Learn and Practice

How fast, which way, and speeding up

Read each question. Circle the best answer.

### 💡 Speed, Velocity and Acceleration

- Speed is distance divided by time.
- Velocity is speed in a certain direction.
- Acceleration is any change in velocity: speeding up, slowing down or turning.
- 100 meters in 20 seconds: 5 meters per second

**1** 🏃 A runner covers 10 meters every second. What is her speed?

A. 10 seconds per meter

B. 10 meters per second

C. 100 meters per second D. 1 meter per second

**2** 🚲 A bike travels 60 meters in 12 seconds. What is its speed?

A. 720 meters per second

B. 0.2 meters per second

C. 5 meters per second D. 48 meters per second

**3** How do you calculate average speed?

A. Mass divided by time B. Distance times time

C. Distance divided by time

D. Time divided by distance

**4** 🧭 Velocity is speed plus what?

A. Direction B. Temperature C. Mass D. Color

**5** A car speeding up is an example of what?

A. Zero motion B. Constant speed

C. Acceleration D. Balanced rest

**6** A car drives around a curve at a steady 50 kilometers per hour. Is it accelerating?

A. No, its speed is steady

B. No, cars cannot accelerate

C. Yes, its direction is changing D. Only if it stops

**7** Two cars go 60 kilometers per hour, one north and one south. What is different?

A. Nothing at all B. Their mass C. Their velocity

D. Their speed

**8** Which unit measures speed?

A. Degrees Celsius B. Metres per second

C. Kilograms D. Newtons

### ✏️ Explain it! Write two facts you learned about speed and acceleration.

ANSWER KEY

# Speed and Acceleration: Learn and Practice (answers)

How fast, which way, and speeding up

Read each question. Circle the best answer.

**1** 🏃 A runner covers 10 meters every second. What is her speed?

A. 10 seconds per meter

**B. 10 meters per second**

C. 100 meters per second  D. 1 meter per second

*10 meters in each second is a speed of 10 meters per second.*

**2** 🚲 A bike travels 60 meters in 12 seconds. What is its speed?

A. 720 meters per second

B. 0.2 meters per second

**C. 5 meters per second**

D. 48 meters per second

*60 divided by 12 is 5, so the speed is 5 meters per second.*

**3** How do you calculate average speed?

A. Mass divided by time  B. Distance times time

**C. Distance divided by time**

D. Time divided by distance

*Speed tells how much distance is covered in each unit of time.*

**4** 🧭 Velocity is speed plus what?

**A. Direction**  B. Temperature  C. Mass

D. Color

*Velocity includes both how fast and which way.*

**5** A car speeding up is an example of what?

A. Zero motion  B. Constant speed

**C. Acceleration**  D. Balanced rest

*Any change in speed is acceleration.*

**6** A car drives around a curve at a steady 50 kilometers per hour. Is it accelerating?

A. No, its speed is steady

B. No, cars cannot accelerate

**C. Yes, its direction is changing**

D. Only if it stops

*Changing direction changes velocity, and that counts as acceleration.*

**7** Two cars go 60 kilometers per hour, one north and one south. What is different?

A. Nothing at all  B. Their mass

**C. Their velocity**  D. Their speed

*Same speed, but opposite directions, so their velocities are different.*

**8** Which unit measures speed?

A. Degrees Celsius  **B. Metres per second**

C. Kilograms  D. Newtons

*Speed is distance over time, like meters per second.*