

## ***Acceleration***

**Directions:** Use your textbook to answer each question.

**1. Speed, velocity, and acceleration describe how an object's position and motion change over time.**

What is acceleration, and what are two conditions that can change when an object accelerates?

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**2. Acceleration can be positive or negative.**

What type of motion would produce positive acceleration in an object? What type of motion would produce negative acceleration?

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**3. Acceleration of an object can be calculated if the initial speed, final speed, and total time the object is in motion are known.**

What is the acceleration of a car during a 5 minute interval in which it goes from 10 m/s to 15 m/s?

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**4. Motion can be described with speed-time graphs.**

How would a speed-time graph represent the motion of an object that is speeding up? How would it represent the motion of an object that is moving at a constant speed?

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