

Motion Diagrams

Activity #1 and Activity #2

Question 1

A bicycle is moving with a constant, rightward velocity.

Question 2

A bicycle is moving with a constant, rightward velocity.

Question 3

A rightward-moving car speeds up, increasing its speed by 5.0 m/s each second.

Question 4

A rightward-moving car slows down, decreasing its speed by 5.0 m/s each second.

Question 5

A leftward-moving car speeds up, increasing its speed by 5.0 m/s each second.

Question 6

A leftward-moving car slows down, decreasing its speed by 5.0 m/s each second.

Activity #3

Question Group #1

Question 1

A skateboarder is moving rightward with a constant speed.

Question 2

A speedboat is moving rightward with a constant speed.

Question 3

A jogger is running rightward with a constant speed.

Question Group #2

Question 4

A skateboarder is moving leftward with a constant speed.

Question 5

A speedboat is moving leftward with a constant speed.

Question 6

A jogger is running leftward with a constant speed.

Question Group #3

Question 7

A rightward-moving skateboarder speeds up, increasing its speed by 0.50 m/s each second.

Question 8

A rightward-moving speedboat speeds up, increasing its speed by 2.0 m/s each second.

Question 9

A rightward-moving racecar speeds up, increasing its speed by 6.0 m/s each second.

Question Group #4

Question 10

A rightward-moving skateboarder slows down, decreasing its speed by 0.50 m/s each second.

Question 11

A rightward-moving speedboat slows down, decreasing its speed by 2.0 m/s each second.

Question 12

A rightward-moving bowling ball slows down, decreasing its speed by 0.4 m/s each second.

Question Group #5

Question 13

A leftward-moving skateboarder speeds up, increasing its speed by 0.50 m/s each second.

Question 14

A leftward-moving speedboat speeds up, increasing its speed by 2.0 m/s each second.

Question 15

A leftward-moving racecar speeds up, increasing its speed by 6.0 m/s each second.

Question Group #6

Question 16

A leftward-moving skateboarder slows down, decreasing its speed by 0.50 m/s each second.

Question 17

A leftward-moving speedboat slows down, decreasing its speed by 2.0 m/s each second.

Question 18

A leftward-moving bowling ball slows down, decreasing its speed by 0.4 m/s each second.