

Chapter 01: The Study of Motion

1. A vector quantity has only a magnitude and no direction associated with it.

- a. True
- b. False

ANSWER: False
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

2. Motion in a circle at constant speed is motion with constant acceleration.

- a. True
- b. False

ANSWER: False
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

3. Motion in a circle at constant speed is motion with constant velocity.

- a. True
- b. False

ANSWER: False
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

4. Uniform motion is any motion at constant speed.

- a. True
- b. False

ANSWER: False
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

5. The terms *velocity* and *speed* have identical meanings in physics.

- a. True
- b. False

ANSWER: False

Chapter 01: The Study of Motion

POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

6. If an object's speed is constant, its velocity must also be constant.

- a. True
- b. False

ANSWER: True
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

7. If an object's velocity is constant, its speed must also be constant.

- a. True
- b. False

ANSWER: True
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

8. The proper abbreviation for 'seconds' is 'sec.'

- a. True
- b. False

ANSWER: False
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

9. The proper abbreviation for 'grams' is 'g.'

- a. True
- b. False

ANSWER: True
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM

Chapter 01: The Study of Motion

DATE MODIFIED: 6/13/2016 10:28 AM

10. The proper abbreviation for 'kilohertz' is 'kHz.'

- a. True
- b. False

ANSWER: True

POINTS: 1

QUESTION TYPE: True / False

HAS VARIABLES: False

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 6/13/2016 10:28 AM

11. The metric prefix that means one thousand is milli-.

- a. True
- b. False

ANSWER: False

POINTS: 1

QUESTION TYPE: True / False

HAS VARIABLES: False

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 6/13/2016 10:28 AM

12. Twenty milliseconds is 0.020 s.

- a. True
- b. False

ANSWER: True

POINTS: 1

QUESTION TYPE: True / False

HAS VARIABLES: False

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 6/13/2016 10:28 AM

13. There are one thousand megabytes in a gigabyte.

- a. True
- b. False

ANSWER: True

POINTS: 1

QUESTION TYPE: True / False

HAS VARIABLES: False

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 6/13/2016 10:28 AM

14. The second is a metric unit of measure.

- a. True

Chapter 01: The Study of Motion

b. False

ANSWER: True
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

15. The number of cycles of a periodic process that occur per unit time is called the period.

a. True
b. False

ANSWER: False
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

16. The time for one complete cycle of a periodic process to take place is called the period.

a. True
b. False

ANSWER: True
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

17. The period of oscillation for a signal having a frequency of 60 Hz is 60 seconds.

a. True
b. False

ANSWER: False
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

18. The maximum possible speed in nature is the speed of light.

a. True
b. False

ANSWER: True
POINTS: 1
QUESTION TYPE: True / False

Chapter 01: The Study of Motion

HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

19. Experimenting is part of the scientific method.

- a. True
- b. False

ANSWER: True
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

20. A body at the end of a spring oscillates up and down ten times in five seconds. The period of oscillation is 2 s.

- a. True
- b. False

ANSWER: True
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

21. The slope of a distance vs. time graph is the acceleration.

- a. True
- b. False

ANSWER: False
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

22. The slope of a velocity vs. time graph is the acceleration.

- a. True
- b. False

ANSWER: True
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

Chapter 01: The Study of Motion

23. An object moving in a circle undergoes centripetal acceleration.

- a. True
- b. False

ANSWER: True
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

24. If an object's acceleration is positive, its speed must be increasing.

- a. True
- b. False

ANSWER: False
RATIONALE: It could have a negative velocity that is getting less negative, which corresponds to a decreasing speed.
POINTS: 1
QUESTION TYP True / False
E:
HAS VARIABLE False
S:
DATE CREATE 6/13/2016 10:28 AM
D:
DATE MODIFIE 6/13/2016 10:28 AM
D:

25. A fast-moving body must have a larger acceleration than a slow-moving body.

- a. True
- b. False

ANSWER: False
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

26. An aircraft approaches a runway that runs directly east as a strong wind blows out of the south. The direction that the aircraft should aim in order to land is east of north.

- a. True
- b. False

ANSWER: False
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False

Chapter 01: The Study of Motion

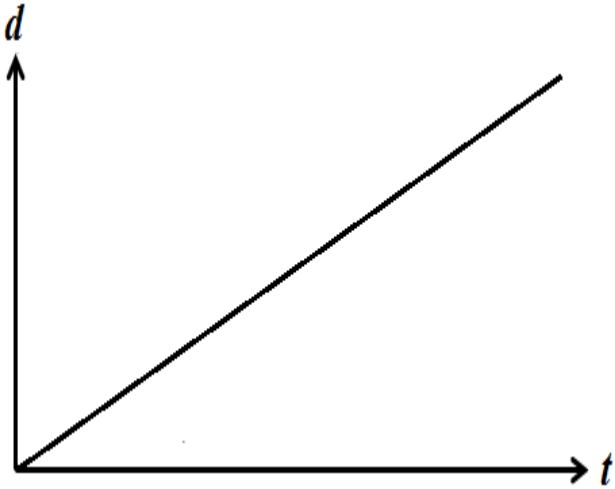
DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

6/13/2016 10:28 AM

The figure shows a distance versus time graph for an object.



27. The velocity of the moving object is a non-zero constant.

- a. True
- b. False

ANSWER:

True

POINTS:

1

QUESTION TYPE:

True / False

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph (1)

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:53 PM

28. The acceleration of the moving object is a non-zero constant.

- a. True
- b. False

ANSWER:

False

POINTS:

1

QUESTION TYPE:

True / False

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph (1)

DATE CREATED:

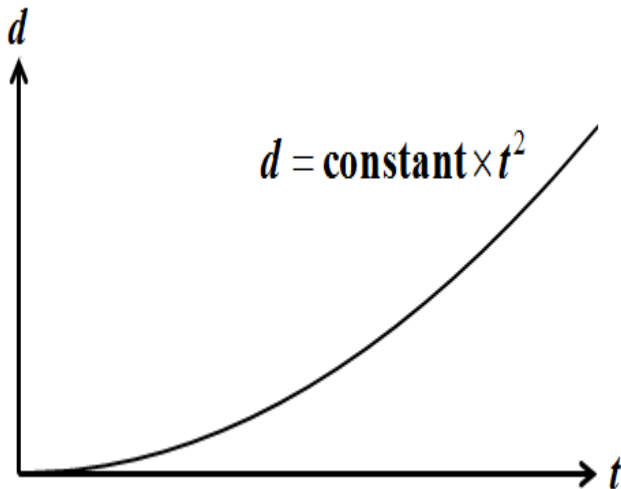
6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:54 PM

The figure shows the distance versus time graph of an object.

Chapter 01: The Study of Motion



29. The velocity of the moving object is a non-zero constant.

- a. True
- b. False

ANSWER:

False

POINTS:

1

QUESTION TYPE:

True / False

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph (2)

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:54 PM

30. The acceleration of the moving object is a non-zero constant.

- a. True
- b. False

ANSWER:

True

POINTS:

1

QUESTION TYPE:

True / False

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph (2)

DATE CREATED:

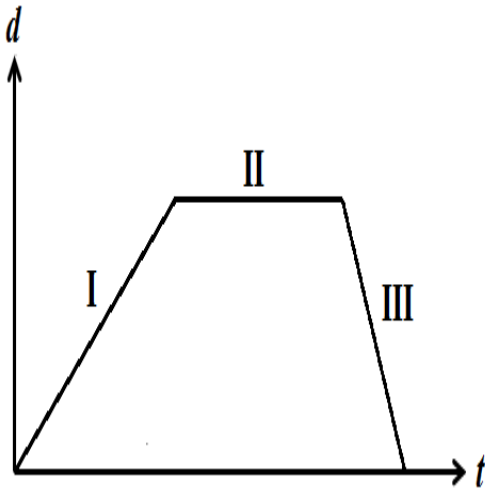
6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:54 PM

The figure shows a distance vs. time graph of an object with three distinct regions, I, II, and III.

Chapter 01: The Study of Motion



31. The object's velocity is zero in region II.

- a. True
- b. False

ANSWER:

True

POINTS:

1

QUESTION TYPE:

True / False

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph 3 regions

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:55 PM

32. The object's velocity is positive in region II.

- a. True
- b. False

ANSWER:

False

POINTS:

1

QUESTION TYPE:

True / False

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph 3 regions

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:55 PM

33. The object's velocity is never negative.

- a. True
- b. False

ANSWER:

False

POINTS:

1

QUESTION TYPE:

True / False

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph 3 regions

DATE CREATED:

6/13/2016 10:28 AM

Chapter 01: The Study of Motion

DATE MODIFIED:

7/29/2016 1:55 PM

34. The object's acceleration is zero only in region II.

- a. True
- b. False

ANSWER:

False

POINTS:

1

QUESTION TYPE:

True / False

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph 3 regions

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:56 PM

35. The object's acceleration is negative in region III.

- a. True
- b. False

ANSWER:

False

POINTS:

1

QUESTION TYPE:

True / False

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph 3 regions

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:57 PM

36. The object is never at rest.

- a. True
- b. False

ANSWER:

False

POINTS:

1

QUESTION TYPE:

True / False

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph 3 regions

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:57 PM

37. The object's speed is greatest in region I.

- a. True
- b. False

ANSWER:

False

POINTS:

1

QUESTION TYPE:

True / False

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph 3 regions

DATE CREATED:

6/13/2016 10:28 AM

Chapter 01: The Study of Motion

DATE MODIFIED:

7/29/2016 1:57 PM

A ball thrown upwards reaches a maximum height and then comes back down to the original level.

38. As the ball is going upwards the velocity and acceleration both point up.

- a. True
- b. False

ANSWER: False

POINTS: 1

QUESTION TYPE: True / False

HAS VARIABLES: False

PREFACE NAME: ball thrown upwards

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 7/29/2016 4:39 PM

39. At the peak of the motion the velocity and acceleration are both zero.

- a. True
- b. False

ANSWER: False

POINTS: 1

QUESTION TYPE: True / False

HAS VARIABLES: False

PREFACE NAME: ball thrown upwards

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 7/29/2016 4:40 PM

40. As the ball is going downwards the velocity and acceleration both point down.

- a. True
- b. False

ANSWER: True

POINTS: 1

QUESTION TYPE: True / False

HAS VARIABLES: False

PREFACE NAME: ball thrown upwards

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 7/29/2016 4:41 PM

41. When a body moves in circular motion at constant speed the velocity and acceleration point in opposite directions.

- a. True
- b. False

ANSWER: False

POINTS: 1

QUESTION TYPE: True / False

HAS VARIABLES: False

Chapter 01: The Study of Motion

DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

The acceleration of a ball as it rolls down a ramp is 4 m/s^2 . The ball is referred to 2 s after it starts to roll.

42. The distance from the starting point is 16 m.

- a. True
- b. False

ANSWER: False
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
PREFACE NAME: ball rolls down a ramp
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:43 PM

43. The velocity acquired after starting from rest is 8 m/s.

- a. True
- b. False

ANSWER: True
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
PREFACE NAME: ball rolls down a ramp
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:44 PM

44. The acceleration after starting from rest is 8 m/s^2 .

- a. True
- b. False

ANSWER: False
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
PREFACE NAME: ball rolls down a ramp
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:45 PM

45. A racecar goes around a 200 m radius curve at a constant speed of 40 m/s. Its acceleration is 8 m/s^2 .

- a. True
- b. False

ANSWER: True
POINTS: 1
QUESTION TYPE: True / False

Chapter 01: The Study of Motion

HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

46. A racecar driver steps on the gas, changing his speed from 10 m/s to 30 m/s in 4 seconds. The acceleration of the racecar is 10 m/s^2 .

- a. True
- b. False

ANSWER: False
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

47. A racecar driver steps on the gas, and his racecar travels 20 meters in 2 seconds starting from rest. The acceleration of the racecar is 5 m/s^2 .

- a. True
- b. False

ANSWER: False
POINTS: 1
QUESTION TYPE: True / False
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

48. Which of these are fundamental physical quantities?

- a. space, time, and matter
- b. kilograms, seconds, and meters
- c. length, time, and mass
- d. momentum, energy, and mass

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

49. What is the proper abbreviation for 'seconds?'

- a. sec
- b. There is none. It should always be spelled out.
- c. secs
- d. s
- e. none of the above

ANSWER: d

Chapter 01: The Study of Motion

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

50. What is the proper abbreviation for 'kilohertz?'

- a. kh
- b. khz
- c. Khz
- d. KHz
- e. kHz

ANSWER: e
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

51. What is the proper abbreviation for 'grams?'

- a. g
- b. gms
- c. gm
- d. gr
- e. kg

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

52. Which metric prefix means one thousand?

- a. milli-
- b. centi-
- c. one-
- d. kilo-
- e. mega-

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM

Chapter 01: The Study of Motion

DATE MODIFIED:

7/13/2016 8:13 PM

53. Twenty milliseconds is

- a. 0.00002 s.
- b. 0.0002 s.
- c. 0.002 s.
- d. 0.02 s.
- e. 20000 s.

ANSWER:

d

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/13/2016 8:13 PM

54. Fifteen microseconds is

- a. 0.0000015 s.
- b. 0.000015 s.
- c. 0.00015 s.
- d. 0.015 s.
- e. 15000000 s.

ANSWER:

b

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/13/2016 8:17 PM

55. Twenty kilometers is

- a. 200,000 m.
- b. 20,000 m.
- c. 2,000 m.
- d. 200 m.
- e. 0.02 m.

ANSWER:

b

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/13/2016 8:16 PM

56. Two microcuries is

- a. 200,000 Ci.

Chapter 01: The Study of Motion

- b. 0.0002 Ci.
- c. 0.00002 Ci.
- d. 0.000002 Ci.
- e. 0.00000002 Ci.

ANSWER:

d

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/13/2016 8:18 PM

57. How many megabytes are there in a gigabyte?

- a. 10
- b. 1000
- c. 1000000
- d. none of the above

ANSWER:

b

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

6/13/2016 10:28 AM

58. In expressions like Δv and Δt , Δ stands for

- a. "change in".
- b. "triangle".
- c. a constant of proportionality.
- d. a variable.

ANSWER:

a

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/13/2016 8:19 PM

59. The number of cycles of a periodic process that occur per unit time is called

- a. amplitude.
- b. frequency.
- c. period.
- d. wavelength.
- e. speed.

ANSWER:

b

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/13/2016 8:20 PM

Chapter 01: The Study of Motion

60. The time for one complete cycle of a periodic process to take place is called

- a. amplitude.
- b. frequency.
- c. period.
- d. wavelength.
- e. speed.

ANSWER:

c

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/13/2016 8:21 PM

61. A body at the end of a spring oscillates up and down ten times in five seconds. The period of oscillation is

- a. 0.5 s.
- b. 2 s.
- c. 5 s.
- d. 10 s.
- e. not determinable.

ANSWER:

a

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/13/2016 8:21 PM

62. What is the period of a signal that has a frequency of 60 Hz?

- a. 60 s
- b. 60 s^{-1}
- c. $1/60 \text{ s}$
- d. not determinable

ANSWER:

c

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/14/2016 2:52 PM

63. The slope of a distance vs. time graph is the

- a. distance.
- b. velocity.
- c. acceleration.
- d. none of the above.

ANSWER:

b

POINTS:

1

QUESTION TYPE:

Multiple Choice

Chapter 01: The Study of Motion

HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/13/2016 8:22 PM

64. The slope of a velocity vs. time graph is the

- a. distance.
- b. velocity.
- c. acceleration.
- d. none of the above

ANSWER:

c

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/13/2016 8:22 PM

65. An object moving in a circle undergoes

- a. constant acceleration.
- b. free fall.
- c. centripetal acceleration.
- d. linear acceleration.
- e. frequency.

ANSWER:

c

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/13/2016 8:23 PM

66. Motion in a circle at constant speed is motion with

- a. constant acceleration.
- b. constant velocity.
- c. both of the above
- d. none of the above

ANSWER: d

RATIONALE: Both v and a are continuously changing direction and therefore not constant.

POINTS: 1

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 7/13/2016 8:23 PM

67. An aircraft approaches a runway that runs directly east as a strong wind blows out of the south. The direction that the aircraft should point in order to land on the runway is

- a. north.
- b. east of north.
- c. east.

Chapter 01: The Study of Motion

- d. south of east.
- e. south.

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/13/2016 8:24 PM

68. GPS stands for

- a. the metric system of measurement.
- b. grams per second.
- c. Global Positioning System.
- d. a space shuttle.
- e. none of the above.

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/13/2016 8:24 PM

69. Instantaneous speed and average speed are equal

- a. always.
- b. for motion at constant speed.
- c. for accelerated motion.
- d. never.

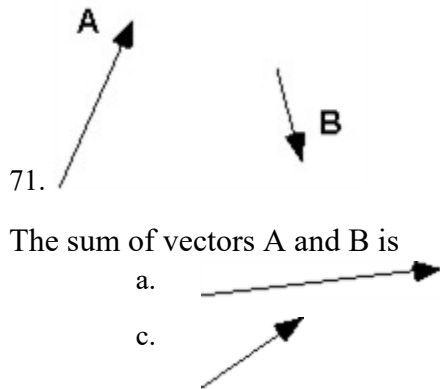
ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/14/2016 2:53 PM

70. If the velocity of an object is negative,

- a. its speed is decreasing.
- b. its velocity does not exist.
- c. it is reversing direction.
- d. it is moving in the direction labeled negative.

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/13/2016 8:25 PM

Chapter 01: The Study of Motion



ANSWER:

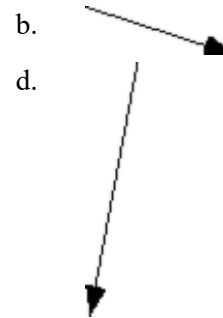
POINTS:

QUESTION TYPE:

HAS VARIABLES:

DATE CREATED:

DATE MODIFIED:



c

1

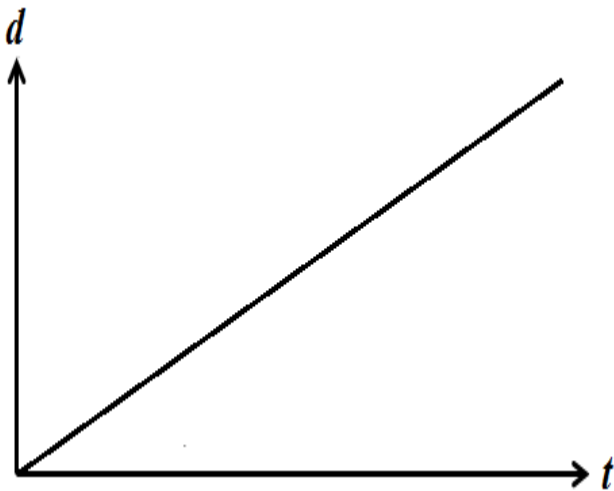
Multiple Choice

False

6/13/2016 10:28 AM

6/13/2016 10:28 AM

The figure shows a distance versus time graph for an object.



72. The velocity of the moving object is

- a. zero.
- b. constant.
- c. increasing.
- d. decreasing.
- e. not determinable.

ANSWER:

b

Chapter 01: The Study of Motion

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph (1)

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:47 PM

73. The acceleration of the moving object is

- a. zero.
- b. constant.
- c. increasing.
- d. decreasing.
- e. not determinable.

ANSWER:

a

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph (1)

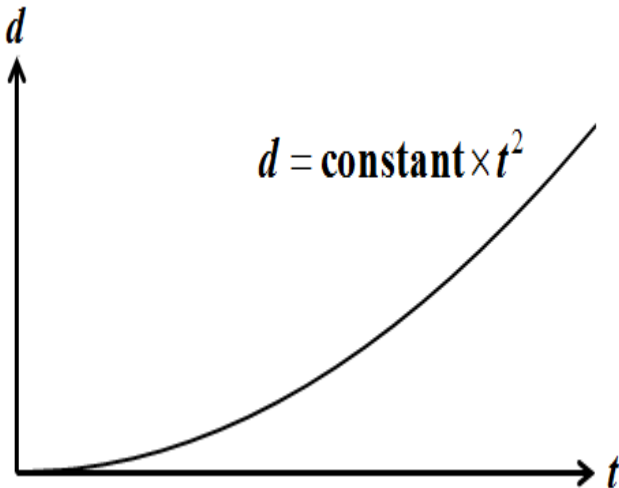
DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:48 PM

The figure shows the distance versus time graph of an object.



74. The velocity of the moving object is

- a. zero.
- b. constant.
- c. increasing.
- d. decreasing.
- e. not determinable.

ANSWER:

c

POINTS:

1

Chapter 01: The Study of Motion

QUESTION TYPE:

HAS VARIABLES:

PREFACE NAME:

DATE CREATED:

DATE MODIFIED:

Multiple Choice

False

d vs. t graph (2)

6/13/2016 10:28 AM

7/29/2016 1:48 PM

75. The acceleration of the moving object is

- a. zero.
- b. constant.
- c. increasing.
- d. decreasing.
- e. not determinable.

ANSWER:

b

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph (2)

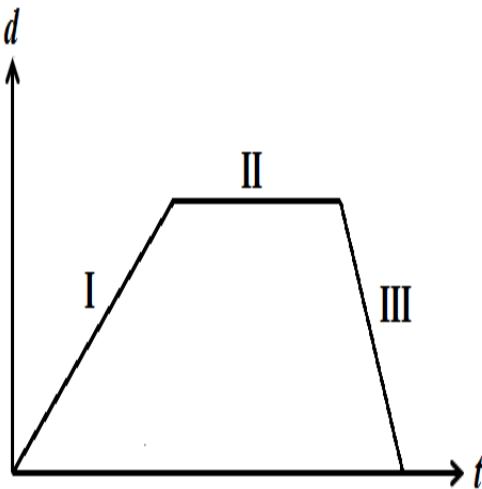
DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:49 PM

The figure shows a distance vs. time graph of an object with three distinct regions, I, II, and III.



76. The object's velocity is zero in region(s)

- a. I.
- b. II.
- c. III.
- d. no regions

ANSWER:

b

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph 3 regions

DATE CREATED:

6/13/2016 10:28 AM

Chapter 01: The Study of Motion

DATE MODIFIED:

7/29/2016 1:49 PM

77. The object's velocity is positive in region(s)

- a. I.
- b. II.
- c. III.
- d. no regions

ANSWER:

a

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph 3 regions

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:50 PM

78. The object's velocity is negative in region(s)

- a. I.
- b. II.
- c. III.
- d. no regions

ANSWER:

c

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph 3 regions

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:50 PM

79. The object's acceleration is negative in region(s)

- a. I.
- b. II.
- c. III.
- d. no regions

ANSWER:

d

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph 3 regions

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:50 PM

80. The object is at rest in region(s)

- a. I.
- b. II.
- c. III.
- d. no regions

ANSWER:

b

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph 3 regions

Chapter 01: The Study of Motion

DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 1:51 PM

81. The object's speed is greatest in region(s)

- a. I.
- b. II.
- c. III.
- d. no regions

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
PREFACE NAME: d vs. t graph 3 regions
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 1:51 PM

A ball thrown upwards reaches a maximum height and then comes back down to the original level.

82. As the ball is going upwards

- a. the velocity and acceleration both point up.
- b. the velocity points up and the acceleration down.
- c. the velocity points down and the acceleration up.
- d. the velocity and acceleration both point down.
- e. the acceleration is zero.

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
PREFACE NAME: ball thrown upwards
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:46 PM

83. At the maximum height

- a. the velocity and acceleration both point up.
- b. the velocity points up and the acceleration down.
- c. the velocity points down and the acceleration up.
- d. the velocity and acceleration both point down.
- e. the velocity is zero.
- f. the acceleration is zero.

ANSWER: e
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
PREFACE NAME: ball thrown upwards
DATE CREATED: 6/13/2016 10:28 AM

Chapter 01: The Study of Motion

DATE MODIFIED:

7/29/2016 4:47 PM

84. As the ball is going downwards

- a. the velocity and acceleration both point up.
- b. the velocity points up and the acceleration down.
- c. the velocity points down and the acceleration up.
- d. the velocity and acceleration both point down.
- e. the acceleration is zero.

ANSWER:

d

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

PREFACE NAME:

ball thrown upwards

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 4:47 PM

85. When a body moves in circular motion at constant speed

- a. the velocity and acceleration point in the same direction.
- b. the velocity and acceleration point in opposite directions.
- c. the velocity and acceleration point perpendicular to each other.
- d. the acceleration is zero.
- e. none of the above.

ANSWER:

c

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/13/2016 8:49 PM

A ball is dropped from a rooftop of a building and falls for two seconds. The acceleration of gravity is 9.8 m/s^2 . The ball is referred to at the two-second time.

86. The distance the ball is below the rooftop in meters is

- a. 0.
- b. 4.9.
- c. 9.8.
- d. 19.6.
- e. none of these.

ANSWER:

d

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

PREFACE NAME:

ball dropped

Chapter 01: The Study of Motion

DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:49 PM

87. The velocity of the ball in m/s is

- a. 0.
- b. 4.9.
- c. 9.8.
- d. 19.6.
- e. none of these.

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
PREFACE NAME: ball dropped
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:49 PM

88. The acceleration of the ball in m/s^2 is

- a. 0.
- b. 4.9.
- c. 9.8.
- d. 19.6.
- e. none of these.

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
PREFACE NAME: ball dropped
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:49 PM

The acceleration of a ball as it rolls down a ramp is 4 m/s^2 . The ball is referred to 2 s after it starts to roll.

89. The distance from the starting point in meters is

- a. 0.
- b. 2.
- c. 4.
- d. 8.
- e. 16.

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False

Chapter 01: The Study of Motion

PREFACE NAME: ball rolls down a ramp
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:50 PM

90. The velocity acquired after starting from rest in m/s is

- a. 0.
- b. 2.
- c. 4.
- d. 8.
- e. 16.

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
PREFACE NAME: ball rolls down a ramp
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:50 PM

91. The acceleration in m/s^2 after starting from rest is

- a. 0.
- b. 2.
- c. 4.
- d. 8.
- e. 16.

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
PREFACE NAME: ball rolls down a ramp
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:51 PM

92. A racecar goes around a 200 m radius curve at a constant speed of 40 m/s. Its acceleration is

- a. 0.
- b. 0.2 m/s^2 .
- c. 4 m/s^2 .
- d. 8 m/s^2 .
- e. 16 m/s^2 .

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice

Chapter 01: The Study of Motion

HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/13/2016 8:52 PM

93. A racecar driver steps on the gas, changing his speed from 10 m/s to 30 m/s in 4 seconds. The acceleration of the racecar is

- a. 0
- b. 2 m/s^2 .
- c. 4 m/s^2 .
- d. 5 m/s^2 .
- e. 7.5 m/s^2 .

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/13/2016 8:53 PM

94. A racecar driver steps on the gas, and his racecar travels 20 meters in 2 seconds starting from rest. The acceleration of the racecar is

- a. 0
- b. 5 m/s^2 .
- c. 9.8 m/s^2 .
- d. 10 m/s^2 .
- e. 20 m/s^2 .

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/13/2016 8:54 PM

95. The maximum possible speed in nature is

- a. warp 10.
- b. the speed of light.
- c. infinite.
- d. unknown.

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/13/2016 9:12 PM

Chapter 01: The Study of Motion

96. Freely falling bodies experience

- a. motion with constant velocity.
- b. motion with zero acceleration.
- c. motion with constant acceleration.
- d. motion at a constant speed.
- e. none of the above

ANSWER:

c

POINTS:

1

QUESTION TYPE:

Multiple Choice

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/14/2016 2:54 PM

97. Which of these are physical quantities?

- a. time
- b. energy
- c. seconds
- d. kilometers
- e. volume

ANSWER:

a, b, e

POINTS:

1

QUESTION TYPE:

Multiple Response

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

6/13/2016 10:28 AM

98. Which of these are metric units?

- a. grams
- b. pounds
- c. seconds
- d. kilometers
- e. square miles

ANSWER:

a, c, d

POINTS:

1

QUESTION TYPE:

Multiple Response

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

6/13/2016 10:28 AM

99. Which of these are units of measure?

- a. time
- b. energy

Chapter 01: The Study of Motion

- c. seconds
- d. kilometers
- e. volume

ANSWER:

c, d

POINTS:

1

QUESTION TYPE:

Multiple Response

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

6/13/2016 10:28 AM

100. Which of these are English units?

- a. seconds
- b. feet
- c. kilometers
- d. slugs

ANSWER:

a, b, d

POINTS:

1

QUESTION TYPE:

Multiple Response

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

6/13/2016 10:28 AM

101. The notation s^{-1} means the same thing as

- a. $1/s$.
- b. Hz.
- c. per second.
- d. none of the above

ANSWER:

a, b, c

POINTS:

1

QUESTION TYPE:

Multiple Response

HAS VARIABLES:

False

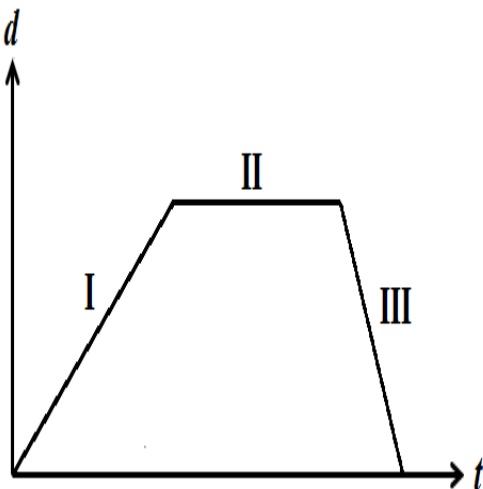
DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/13/2016 9:13 PM

The figure shows a distance vs. time graph of an object with three distinct regions, I, II, and III.



Chapter 01: The Study of Motion

102. The object's acceleration is zero in region(s)

- a. I.
- b. II.
- c. III.
- d. no regions

ANSWER:

a, b, c

POINTS:

1

QUESTION TYPE:

Multiple Response

HAS VARIABLES:

False

PREFACE NAME:

d vs. t graph 3 regions

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

7/29/2016 1:52 PM

103. Which of these are a part of the scientific method?

- a. hypothesis
- b. experiment
- c. dogma
- d. observation

ANSWER:

a, b, d

POINTS:

1

QUESTION TYPE:

Multiple Response

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

6/13/2016 10:28 AM

104. What is "uniform motion?"

- a. smooth motion
- b. motion with zero acceleration
- c. motion with constant velocity
- d. motion at a constant speed
- e. motion along a straight path

ANSWER:

b, c

POINTS:

1

QUESTION TYPE:

Multiple Response

HAS VARIABLES:

False

DATE CREATED:

6/13/2016 10:28 AM

DATE MODIFIED:

6/13/2016 10:28 AM

105. Which of these objects is moving with constant velocity but changing acceleration?

- a. a rock dropped from a bridge
- b. a car going around a banked curve at 40 m/s
- c. an aircraft being launched off of an aircraft carrier
- d. an aircraft in a banked turn at 100 m/s

ANSWER:

b, d

POINTS:

1

QUESTION TYPE:

Multiple Response

Chapter 01: The Study of Motion

HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/15/2016 12:45 PM

106. A quantity that has only a magnitude but no direction associated with it is called a _____.

ANSWER: scalar
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

107. A quantity that has both a magnitude and direction associated with it is called a _____.

ANSWER: vector
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

108. The proper abbreviation for 'seconds' is _____.

ANSWER: s
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

109. The notation s^{-1} means _____.

ANSWER: per second
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

110. The proper abbreviation for 'kilohertz' is _____.

ANSWER: kHz
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

Chapter 01: The Study of Motion

111. The number of cycles of a periodic process that occur per unit time is called the _____.

ANSWER: frequency
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

112. The time for one complete cycle of a periodic process to take place is called the _____.

ANSWER: period
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

113. In expressions like Δv and Δt , Δ stands for _____.

ANSWER: change in
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

114. A body at the end of a spring oscillates up and down ten times in five seconds. The period of oscillation is _____.

ANSWER: 0.5 s
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

115. The slope of a velocity vs. time graph is the _____.

ANSWER: acceleration
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

116. The slope of a distance vs. time graph is the _____.

ANSWER: velocity
POINTS: 1

Chapter 01: The Study of Motion

QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

117. An aircraft approaches a runway that runs directly east as a strong wind blows out of the south. The direction that the aircraft should points in order to land on the runway is _____.

ANSWER: south of east

POINTS: 1

QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

A ball thrown upwards reaches a maximum height and then comes back down to the original level.

118. As the ball is going upwards, the velocity points _____ and the acceleration points _____.

ANSWER: up, down

POINTS: 1

QUESTION TYPE: Completion
HAS VARIABLES: False
PREFACE NAME: ball thrown upwards
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:52 PM

119. At the peak of the motion, the velocity is _____ and the acceleration points _____.

ANSWER: zero, down

POINTS: 1

QUESTION TYPE: Completion
HAS VARIABLES: False
PREFACE NAME: ball thrown upwards
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:52 PM

120. As the ball is going downwards, the velocity points _____ and the acceleration points _____.

ANSWER: down, down

POINTS: 1

QUESTION TYPE: Completion
HAS VARIABLES: False
PREFACE NAME: ball thrown upwards
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:53 PM

121. When a body moves in circular motion at constant speed, the velocity and acceleration point _____.

Chapter 01: The Study of Motion

ANSWER: perpendicular to each other
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

122. If an object's acceleration is nonzero, its velocity must be _____.

ANSWER: changing
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

A ball is dropped from a rooftop of a building and falls for two seconds. The acceleration of gravity is 9.8 m/s^2 . The ball is referred to at the two-second time.

123. The ball is referred to at the two-second time. The distance below the rooftop is _____.

ANSWER: 19.6 m
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
PREFACE NAME: ball dropped
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:53 PM

124. The ball is referred to at the two-second time. The velocity is _____.

ANSWER: 19.6 m/s
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
PREFACE NAME: ball dropped
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:54 PM

125. The ball is referred to at the two-second time. The acceleration is _____.

ANSWER: 9.8 m/s^2
POINTS: 1
QUESTION TYPE: Completion
HAS VARIABLES: False
PREFACE NAME: ball dropped
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/29/2016 4:54 PM

Chapter 01: The Study of Motion

The acceleration of a ball as it rolls down a ramp is 4 m/s^2 . The ball is referred to 2 s after it starts to roll.

126. The distance from the starting point is _____.

ANSWER: 8 m

POINTS: 1

QUESTION TYPE: Completion

HAS VARIABLES: False

PREFACE NAME: ball rolls down a ramp

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 7/29/2016 4:55 PM

127. The acceleration after starting from rest is _____.

ANSWER: 4 m/s^2

POINTS: 1

QUESTION TYPE: Completion

HAS VARIABLES: False

PREFACE NAME: ball rolls down a ramp

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 7/29/2016 4:56 PM

128. The velocity acquired after starting from rest is _____.

ANSWER: 8 m/s

POINTS: 1

QUESTION TYPE: Completion

HAS VARIABLES: False

PREFACE NAME: ball rolls down a ramp

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 7/29/2016 4:57 PM

129. A racecar goes around a 200 m radius curve at a constant speed of 40 m/s. Its acceleration is _____.

ANSWER: 8 m/s^2

POINTS: 1

QUESTION TYPE: Completion

HAS VARIABLES: False

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 6/13/2016 10:28 AM

130. A racecar driver steps on the gas, changing his speed from 10 m/s to 30 m/s in 4 seconds. The acceleration of the racecar is _____.

ANSWER: 5 m/s^2

POINTS: 1

QUESTION TYPE: Completion

HAS VARIABLES: False

Chapter 01: The Study of Motion

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 6/13/2016 10:28 AM

131. A racecar driver steps on the gas, and his racecar travels 20 meters in 2 seconds starting from rest. The acceleration of the racecar is _____.

ANSWER: 10 m/s²

POINTS: 1

QUESTION TYPE: Completion

HAS VARIABLES: False

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 6/13/2016 10:28 AM

132. A glider is in a banked curve with a radius of 125 m radius curve at a constant speed of 10 m/s. Its acceleration is _____.

ANSWER: 0.8 m/s²

POINTS: 1

QUESTION TYPE: Completion

HAS VARIABLES: False

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 6/14/2016 12:28 PM

133. A pilot punches the throttle lever forward, changing his speed from 0 m/s to 40 m/s in 7 seconds. The acceleration of the racecar is _____.

ANSWER: 5.7 m/s²

POINTS: 1

QUESTION TYPE: Completion

HAS VARIABLES: False

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 6/14/2016 12:28 PM

134. An aircraft undergoes a constant acceleration of 11 m/s² for 12 seconds. The distance traveled is _____.

ANSWER: 792 m

POINTS: 1

QUESTION TYPE: Completion

HAS VARIABLES: False

DATE CREATED: 6/13/2016 10:28 AM

DATE MODIFIED: 6/15/2016 12:45 PM

135. The Gateway Arch in St. Louis, Missouri is 630 feet tall. Express this distance in meters and in kilometers.

ANSWER: 192 m, 0.192 km

POINTS: 1

QUESTION TYPE: Subjective Short Answer

Chapter 01: The Study of Motion

HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

136. Devil's Tower National Monument is 1280 ft high. Convert this height to meters.

ANSWER: 390
POINTS: 1
QUESTION TYPE: Subjective Short Answer
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

137. A runner in a race takes 2.7 seconds to go from the 40 meter mark to the 70-meter mark.

- (a) What is the runner's speed?
(b) How far would the runner go in 8 seconds if this speed is maintained?
(c) How long did it take the runner to cover the first 40 m (assuming the same speed was maintained)?

ANSWER: 11.1 m/s, 89 m, 3.6 s
POINTS: 1
QUESTION TYPE: Subjective Short Answer
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 7/12/2016 12:11 PM

138. During takeoff a jet aircraft goes from 0 m/s to 60 m/s in 5 seconds.

- (a) What is the jet's acceleration?
(b) What is the jet's speed after 22 seconds?

ANSWER: 12 m/s^2 , 264 m/s
POINTS: 1
QUESTION TYPE: Subjective Short Answer
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/14/2016 12:32 PM

139. The acceleration of a ball as it rolls down a ramp is 3 m/s^2 . It starts from rest.

- (a) What is the ball's speed after 4 seconds?
(b) How far does the ball travel during the 4 seconds?

ANSWER: 12 m/s, 24 m
POINTS: 1
QUESTION TYPE: Subjective Short Answer
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

Chapter 01: The Study of Motion

140. A race car goes around a curve at 50 m/s. The radius of the curve is 400 m. What is the car's acceleration?

ANSWER: 6.25 m/s²
POINTS: 1
QUESTION TYPE: Subjective Short Answer
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

141. A 'cliff diver' in Mexico dives off a high cliff and falls for 2.3 seconds before hitting the water.

- (a) How fast is the diver going at impact?
(b) How far below the cliff is the diver at this point?

ANSWER: 22.5 m/s, 25.9 m
POINTS: 1
QUESTION TYPE: Subjective Short Answer
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/14/2016 12:34 PM

142. A high performance aircraft is executing a tight turn at 135 m/s. The radius of the curve is 750 m. What is the aircraft's acceleration?

ANSWER: 24.3 m/s²
POINTS: 1
QUESTION TYPE: Subjective Short Answer
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/13/2016 10:28 AM

Match each item with the correct statement below.

- | | |
|-----------------------------|--------------------------|
| a. acceleration | b. Aristotle |
| c. centripetal acceleration | d. English |
| e. frequency | f. Galileo Galilei |
| g. kilo | h. metric |
| i. milli- | j. period |
| k. scalar | l. velocity |
| m. vector | n. constant acceleration |

QUESTION TYPE: Matching
HAS VARIABLES: False
DATE CREATED: 6/13/2016 10:28 AM
DATE MODIFIED: 6/15/2016 1:47 PM

143. the number of cycles of a periodic process that occur per unit time

ANSWER: e

Chapter 01: The Study of Motion

<i>POINTS:</i>	1
144. the slope of a distance versus time graph equals this	
<i>ANSWER:</i>	l
<i>POINTS:</i>	1
145. any physical quantity that has a direction associated with it	
<i>ANSWER:</i>	m
<i>POINTS:</i>	1
146. any physical quantity that does not have a direction associated with it	
<i>ANSWER:</i>	k
<i>POINTS:</i>	1
147. the rate of change of velocity	
<i>ANSWER:</i>	a
<i>POINTS:</i>	1
148. time it takes for one complete cycle of a periodic process	
<i>ANSWER:</i>	j
<i>POINTS:</i>	1
149. any object moving in a circle undergoes this	
<i>ANSWER:</i>	c
<i>POINTS:</i>	1
150. metric prefix that means one thousand	
<i>ANSWER:</i>	g
<i>POINTS:</i>	1
151. correctly analyzed the motion of a falling body	
<i>ANSWER:</i>	f
<i>POINTS:</i>	1
152. most widely used system of measure	
<i>ANSWER:</i>	h
<i>POINTS:</i>	1
153. An object undergoing free fall in a vacuum experiences	
<i>ANSWER:</i>	n
<i>POINTS:</i>	1