3 Lecture - PHY101

Important Mcqs

A car moves in a circular path of radius 100 meters with a constant speed of 10 m/s. What is the magnitude of the centripetal acceleration of the car? A. 1 m/s^2 B. 10 m/s^2 C. 100 m/s^2 D. 1000 m/s² Answer: B. 10 m/s² A ball is thrown horizontally from the top of a cliff with a speed of 20 m/s. If the cliff is 50 meters high, how far from the base of the cliff will the ball hit the ground? A. 100 m B. 150 m C. 200 m D. 250 m Answer: C. 200 m A person is standing at the edge of a cliff and throws a ball with a velocity of 30 m/s at an angle of 60 degrees with the horizontal. What is the horizontal component of the velocity of the ball? A. 15 m/s B. 25 m/s C. 30 m/s D. 35 m/s Answer: A. 15 m/s

A car is traveling at a speed of 20 m/s and comes to a complete stop in 5 seconds. What is the magnitude of its acceleration?

| A. 4 m/s^2 |
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| B. 5 m/s^2 |
| C. 10 m/s ² |
| D. 20 m/s ² |
| Answer: C. 10 m/s ² |
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| A ball is thrown vertically upwards with a speed of 20 m/s . What is the maximum height reached by the ball? |
| A. 20 m |
| B. 40 m |
| C. 80 m |
| D. 160 m |
| Answer: B. 40 m |
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| A train is moving with a velocity of 40 m/s. If the train accelerates uniformly at 4 m/s 2 for 10 seconds, what is the final velocity of the train? |
| A. 80 m/s |
| B. 60 m/s |
| C. 50 m/s |
| D. 44 m/s |
| Answer: B. 60 m/s |
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| A car starts from rest and accelerates uniformly at 5 $\mbox{m/s}^2$ for 10 seconds. What is the distance traveled by car? |
| A. 125 m |
| B. 250 m |
| C. 500 m |
| D. 1000 m |
| Answer: C. 500 m |
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| A. 20 m B. 40 m C. 60 m D. 80 m Answer: C. 60 m A rocket is launched vertically upwards with an initial velocity of 100 m/s. What is the maximum height reached by rocket? A. 5000 m B. 10000 m C. 15000 m D. 20000 m Answer: D. 20000 m Answer: D. 20000 m A ball is thrown horizontally from the top of a building with a velocity of 10 m/s. If the building is 10 meters high, how far from the base of the building will the ball hit the ground? A. 10 m B. 20 m C. 50 m | with the horizontal. What is the range of the stone? |
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| B. 20 m | A ball is thrown horizontally from the top of a building with a velocity of 10 m/s. If the building is 100 meters high, how far from the base of the building will the ball hit the ground? |
| | A. 10 m |
| C. 50 m | B. 20 m |
| | C. 50 m |
| D. 100 m | D. 100 m |
| Answer: C. 50 m | Answer: C. 50 m |
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A stone is thrown from the top of a building with an initial velocity of 20 m/s at an angle of 30 degrees