31. When two bodies move toward each other with constant speeds the distance between them decreases at the rate of 6m / sec. If they move in the same direction the distance between them increases at the rate of 4m/sec. Then their speeds are

A. 5m/s, 1m/s
B. 3m/s, 3m/s
C. 6m/s, 1m/s
D. 4m/s, 2m/s

Answer: Option **A**

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32. Distance covered by a freely falling body in 2 seconds will be

A. 4.9 m
B. 19.6 m
C. 39.2 m
D. 44.1 m

Answer: Option **B**

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33. The distance covered by a body in time t starting from rest is

A. at2/2
B. Vt
C. a2t/2
D. at2

Answer: Option **A**

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34. Flight of a rocket in the space is an example of

A. second law of motion
B. third law of motion
C. first law of motion
D. law of gravitation

Answer: Option **B**

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35. The trajectory (or path) of a projectile is

A. straight line
B. parabola
C. hyperbola
D. circle

Answer: Option **B**

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36. At which angle the range of the projectile is maximum

A. 45?
B. 60?
C. 30?
D. none

Answer: Option A

37. The force beared by a wall on which water strikes normally at a speed of 10m/sec and at a discharge of 0.0001m3/sec is.

A. 1 N
B. 10 N
C. 100 N
D. none

Answer: Option A

38. Time rate of change of momentum is equal to

A. force
B. impulse
C. velocity
D. both (a) and (c)

Answer: Option A

39. The range of the projectile at 30? and 60? are

A. equal to 45?
B. equal to 90?
C. equal to each other
D. none of the above

Answer: Option C

40. Why Ballistic missile fails in some circumstances of precision.

A. due to their shape
B. due to air resistance
C. due to angle of projection
D. att of these

Answer: Option B

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