

Model Soliton Technologies Aptitude Test Questions

Q1. A rocket launched accelerates at 3.5 m/s^2 in 5.90 secs and 2.98 m/s^2 in the next 5.98 secs and then experiences a free fall. What time will the rocket be in air? Assume that the rocket is launched from the ground.

Q2. A 1423-kg car is moving along a level highway with a speed of 26.4 m/s. The driver takes the foot off the accelerator and the car experiences a retarding force of 901-N over a distance of 106 m. Determine the speed of the car after traveling this distance.

Q3. Consider two identical pack of cards A and B. When one card from A is taken and shuffled with the card B, the first top card of A is the Queen of hearts. What will be the probability that the top card of B to be King of hearts?

Q4. Four unit squares are chosen at random on a chessboard. What is the probability that three of them are of one color and fourth is of opposite colour?

Q5. A rectangle is of length 8 inches, breadth 11 inches and thickness 2 inches. When it is shaped to a cylindrical rod with the diameter is 10m. What is the height of the cylinder?

Q6. The angle of elevation to the tower is 30° and then moved towards the tower of a distance 20m. Now the angle of elevation is 60° . What is the height of the tower?

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Q7. Area of a right angled triangle is doubled while its base is reduced to its half, what % increase occurs in its height?

Q8. Three metal cubes with edges 3 cm, 4 cm and 5 cm are melted to form a single cube. Find the area of the side formed in the large cube.

Q9. From the origin of an electric dipole, the charge is 25(micro coulomb) and after a distance of 62cm, the charge is -16(micro coulomb). At what point from the origin the value of electric dipole will be zero?

Q10. Consider a cube such that the product of the three faces of the cube forms the vertex. The sum of all vertices is 1001. Then what will be the sum of numbers in all the faces of the cube?

Q11. A team of 8 students goes on an excursion, in two cars, of which one can seat 5 and the other only 4. In how many ways can they travel?