Mareya Al-Qebteya Secondery School

Physics

Unit 6: Potential energy and energy conservation

6.5 Conservation of Mechanical Energy

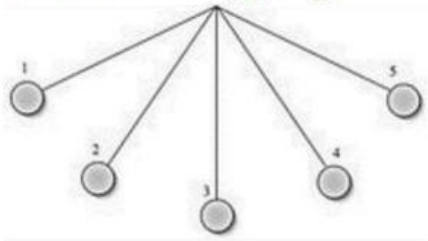
WS # 18

Name: ..... Grade 11 ( )

Exercise 1: ☆

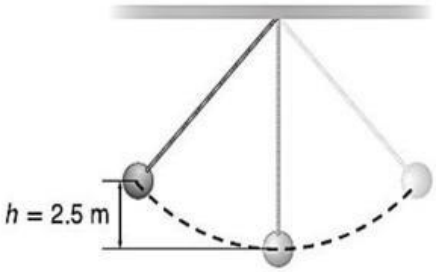
When a pendulum swings, at which point is kinetic energy highest?

1 - 2 - 3 - 5



Exercise 2: ☆☆

The illustration below shows a ball swinging on a rope. The mass of the ball is 4.0 kg. Assume that the mass of the rope is negligible. Assume that friction is negligible. What is the maximum speed of the ball as it swings back and forth?



A. 0.14 m/s

B. 21 m/s

C. 7.0 m/s

D. 49 m/s

LIVEWORKSHEETS

Exercise 3: ☆☆☆

6.75 You are on a swing with a chain 4.00 m long. If your maximum displacement from the vertical is 35.0°, how fast will you be moving at the bottom of the arc?

Exercise 4: ☆

Q. An object has 64 J of kinetic,134 J of potential, then it will have _____ of mechanical energy.

- 8,576 J
- 189 J
- 70J
- 198 J

Exercise 5: ☆☆

6.71 A 1.50 kg ball has a speed of 20.0 m/s when it is 15.0 m above the ground. What is the total energy of the ball?

LIVEWORKSHEETS