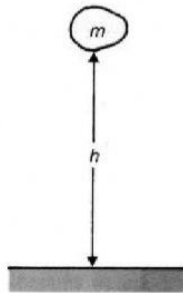


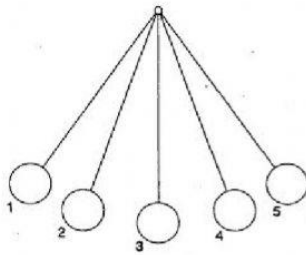
Chapter 13 Unit Test

Drag and drop the steps of producing electricity into the correct order.

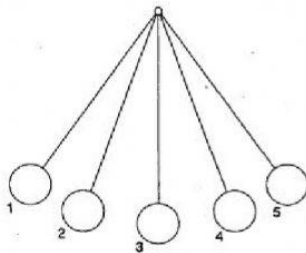
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|-----------|--|
| 1. Step 1 | a. The spinning generator produces electric current. |
| 2. Step 2 | b. The mechanical energy of the spinning turbine is used to turn a generator. |
| 3. Step 3 | c. Thermal energy is added to water to produce steam. |
| 4. Step 4 | d. Thermal energy is released when fossil fuels are burned or when atoms are split with nuclear fission. |
| 5. Step 5 | e. High pressure steam is used to spin a turbine. |
| 6. Step 6 | f. The electrical current from the spinning generator is transmitted to customers. |



7. What is the gravitational potential energy of the rock if its weight is 15 newtons, its mass is 1.53 grams and it is 30 meters above the ground? _____Joules



8. If the pendulum has 60 joules of potential energy at position 1, what is the kinetic energy at position 3? _____Joules



9. The pendulum has 60 joules of potential energy at position 1. If the potential energy at position 2 is 25 Joules, what is the kinetic energy at position 2? _____Joules

10. Moving water can be used to produce electricity because
- kinetic energy can be converted into potential energy, but not vice versa.
 - most forms of energy can be converted into other forms.
 - potential energy can be converted into kinetic energy, but not vice versa.
 - energy cannot be converted into other forms of energy.