Chapter 13 Unit Test

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

1. Step 1
2. Step 2
3. Step 3
4. Step 4
5. Step 5
6. Step 6

a. The spinning generator produces electric current.

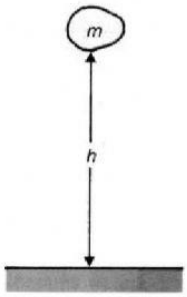
b. The mechanical energy of the spinning turbine is used to turn a generator.

c. Thermal energy is added to water to produce steam.

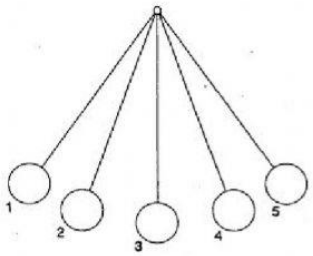
d. Thermal energy is released when fossil fuels are burned or when atoms are split with nuclear fission.

e. High pressure steam is used to spin a turbine.

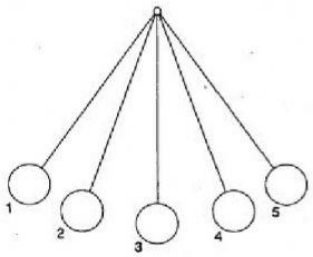
f. The electrical current from the spinning generator is transmitted to customers.



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
   a. kinetic energy can be converted into potential energy, but not vice versa.
   b. most forms of energy can be converted into other forms.
   c. potential energy can be converted into kinetic energy, but not vice versa.
   d. energy cannot be converted into other forms of energy.