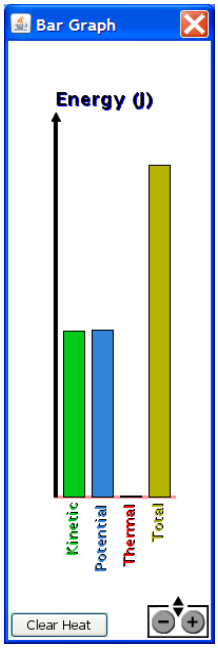
Quiz 6 – Energy

Name: _____ Group: ____

1. Circle the items below that are forms of energy and put x's through the items that are not forms of energy.

Chemical	Air	Sound	Electrical
Power	Banana	Gasoline	Nuclear
Thermal	Water	Electromagnetic	Wood



2. Does energy have mass? Please provide examples.

3. Draw a pie chart that matches this bar graph shown.

4. Draw the bar graph that matches the pie chart shown.

5. Sally says "*kinetic energy can turn into thermal energy.*" Jean says, "*No, energy cannot be created nor destroyed so you cannot create thermal from nothing and you can't destroy the kinetic.*"
Who's correct?

A. Sally
B. Jean
C. Both Sally and Jean
D. Both are incorrect.

6. When a car begins from rest and speeds up to 50 mi/hr, energy begins as _____ and ends up as _____.

A. Chemical, Thermal
B. Chemical, Kinetic
C. Kinetic, Thermal
D. Kinetic to Gravitational Potential
E. Gravitational Potential, Kinetic

6. When a rock drops from a tall building, energy begins as _____ and ends up as _____ before it hits the ground.

A. Chemical, Thermal
B. Chemical, Kinetic
C. Kinetic, Thermal
D. Kinetic to Gravitational Potential
E. Gravitational Potential, Kinetic

7. When a car is parked on a hill and its brakes fail, it begins rolling towards the bottom picking up speed, energy begins as _____ and ends up as _____.

A. Chemical, Thermal
B. Chemical, Kinetic
C. Kinetic, Thermal
D. Kinetic to Gravitational Potential
E. Gravitational Potential, Kinetic

8. When a person tosses a baseball straight up into the air, after leaving the person's hand the ball goes up and stops before falling back to the ground. Energy begins as _____ and ends up as _____ at the top of the flight.

A. Chemical, Thermal
B. Chemical, Kinetic
C. Kinetic, Thermal
D. Kinetic to Gravitational Potential
E. Gravitational Potential, Kinetic

9. When Nicole runs a marathon from the start of the race to the end when she's hugging her opponent, energy begins as _____ and ends up as _____ .

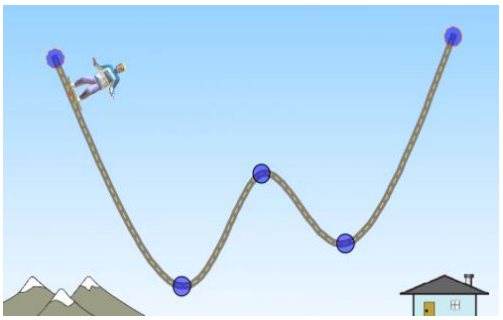
A. Chemical, Thermal
B. Chemical, Kinetic
C. Kinetic, Thermal
D. Kinetic to Gravitational Potential
E. Gravitational Potential, Kinetic

10. When the burner on a stove top turns red hot, energy beings as _____ and ends up as _____.

A. chemical, thermal
B. Electrical, thermal and electromagnetic
C. Electrical, thermal only
D. Thermal, Electromagnetic
E. Kinetic, Thermal

10. How does a giant windmill harvest wind energy and convert it into electrical energy?

11. If there is no friction on the track, how high does the skater get if he starts as shown? Mark the *exact* spot with an X.



12. If an object carries a net electrical charge, it will

A. attract all other objects
B. attract all plastic objects
C. attract only objects with a like charge
D. attract only objects with the opposite charge
E. attract bits of paper

13. An item with a positive charge

A. gained electrons
B. gained protons
C. lost electrons
D. lost protons

14. All magnets
    A. have a net electrical charge
    B. are attracted to all metals
    C. both A and B
    D. neither A or B

15. Power is
    A. energy output per unit time
    B. a form of Energy
    C. a force
    D. All of the above
    E. None of the above