

Name\_\_\_\_\_ Date\_\_\_\_\_

### Section 10.4 Powerful Charges

- 1) Define Power.
- 2) What is electrical power?
- 3) What is the symbol for power?
- 4) What is the equation that defines power?
- 5) How can power be expressed?
- 6) What has the joule per second been renamed as?
- 7) What do many electrical devices have marked on them?
- 8) What does that number tell you?
- 9) How can you find out how much electrical energy a device uses?
- 10) Do electrical devices convert all of the electrical energy into the desired form of energy?

- 11) What is some electrical energy always converted to?
- 12) What do engineers try to do when designing electrical appliances?
- 13) How can you determine the efficiency of an electrical device?
- 14) What does it mean to say that a radio is not 100% efficient?
- 15) A washing machine has a power rating of 512W. If one cycle lasts 30 min, how much energy does the machine use per cycle?
- 16) A CD player that was on for 1 hour used 360 000 J of electrical energy. What is its power in watts?
- 17) If a light bulb uses 30 000 J of electrical energy and emits 900 J of light energy, what is the percent efficiency of the light bulb?