Class work – Electricity Practice problems Name: \_\_\_\_\_\_\_\_\_\_\_\_

1. You are given an appliance that uses 100W of power and is running for one minute. It uses a charge of 1200 C and 20 A. What is the strength of the appliance’s resistance? (there several ways to do this question)
2. Here is a table with information about 4 different electrical devices that have been running **for the same length of time.** Using the #s given in the table, calculate which uses the most energy and which uses the least.

|  |  |  |
| --- | --- | --- |
| 1 | 120 V | 15 A |
| 2 | 120 V | 1 500 W |
| 3 | 240 V | 40 Ω |
| 4 | 240 V | 1.85 kW |

1. Using the information in the circuit below. Determine the energy used after 2 hrs and 15 minutes of use. Do you calculations twice … once for Joules and once for kWh. Check your answer using 1 kWh = 3.6 x 106 J.

R =0.8 Ω

I = 20 A

1. When you came home from school you decided to:

Read through your science notes for 1hr using a 100 W lamp.

Play X-box for 36 minutes, which uses 110V outlet and 2.2 A.

Took your shower that used 2.4 kWh (kilowatt hours)

Calculate the total amount of energy that you used?

Do you calculations twice … once for Joules and once for kWh. Check your answer using 1 kWh = 3.6 x 106 J.