

Electricity Calculations - Worksheet

Name: _____ Date: _____

Formulas: $V = I \times R$ $P = I \times V$ $E = V \times I$ $E = P \times t$

Watts = Joules per second

1. Warner likes waffles for breakfast. How much energy is used by a waffle maker that has a power rating of .7501 kW and is operated for 3.6h ?

using the current cost of electricity in Saskatchewan (13.267 cents per kWh) , how much did it cost to run the waffle maker.

2. Find the cost to run a 1200-watt microwave oven, if you make microwave popcorn in 5 minutes.
(price per kWh is 13.267 cents)

3. A 615 W fridge runs 24 hours/day. How much energy would it use in the month of December (31 days)

What would it cost to run? (price per kWh is 13.267 cents)

9. A 45 W lightbulb is on for 90 minutes and will output 98,000 J of light energy. If the total energy the light used was 243,000 J, what is the efficiency of the light bulb.

10. A new ipad pro will draw 12W of power while it charges for 4.5 hours. Calculate the power used and then how much it will cost each time you charge it.

11. Tough one – plus conversions.

The wall charger for an iPhone is 900mA. If you have it plugged into the wall for 2 hours, how much power have you consumed?

