

### Energy Efficiency Comparison Assignment

**Task:**

You will be given the **annual energy usage** and **cost** of several appliances in a chart below. One of the appliances will be high-efficiency and the other will be low-efficiency. Your task is to estimate the number of years it will take to recoup your costs in the more expensive high-efficiency appliance.

**Procedure:**

1. You will be given the cost of each appliance.
2. You will be given the annual energy consumption of each appliance.
3. Use the Natural Resources Canada website to calculate the annual cost of energy for each appliance.

**Website:**

1. Natural Resources of Canada – Energy Cost Calculator  
<http://oee.nrcan.gc.ca/residential/personal/appliances/energy-cost-calculator.cfm>

**Calculations:**

Appliance	Cost of Appliance (\$)	Annual Electricity Consumption (kW·h/year)	Annual Energy Cost (\$)
Dishwasher - Bosch	950	200	
Dishwasher - GE	900	300	
Clothes Dryer - Maytag	660	110	
Clothes Dryer - Kenmore	575	385	
Freezer – Frigidaire	440	615	
Freezer – Insignia	650	210	

**Questions:**

1. For each of your devices, state the how much time (in years) it will take to break even if you purchase the more expensive high-efficiency appliance. (6)
2. What are the benefits of buying a more energy efficient appliance? (3)
3. What information does an EnerGuide label provide? (4)
4. What does an Energy Star label indicate? (2)
5. List five appliances found in the home that consume electrical energy even when they are not in use. (5)