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Unit VI  
Thermal Energy & Heat  
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# VI

## How to Read Energy Bills Activity

**Objective:** To calculate the fuel cost of heating a household for one year.

**Directions:** Use the composite bill sheet to help compute the answers.

### A. Total Heating Cost for One Year

1. List the current charges for each month:

\$ _____ June	\$ _____ October	\$ _____ February
\$ _____ July	\$ _____ November	\$ _____ March
\$ _____ August	\$ _____ December	\$ _____ April
\$ _____ September	\$ _____ January	\$ _____ May

2. Add the current charges for all twelve months. Total: \_\_\_\_\_ dollars  
3. Which month was the most expensive? \_\_\_\_\_

### B. Degree Days

Some months are colder than others. This is indicated on the bill as degree days.  
(A degree day is the temperature difference in degrees times the number of days.)

4. Indicate the number of degree days for each month below:

_____ June	_____ October	_____ February
_____ July	_____ November	_____ March
_____ August	_____ December	_____ April
_____ September	_____ January	_____ May

5. Which was the coldest month? \_\_\_\_\_

### C. Fuel Cost

The bill includes a fuel cost and a base charge. To determine the fuel cost multiply the number of therms by the average gas cost per therm.

6. Calculate the average fuel cost for each month.

_____ June	_____ October	_____ February
_____ July	_____ November	_____ March
_____ August	_____ December	_____ April
_____ September	_____ January	_____ May

7. Which month had the lowest fuel cost. \_\_\_\_\_  
8. What is the fuel cost for this month? \$ \_\_\_\_\_  
9. Calculate the difference between the current charges (question 1) for this month and the fuel cost: \$ \_\_\_\_\_  
10. What is this additional charge for? \_\_\_\_\_  
11. What is most of the fuel used for during this month? \_\_\_\_\_

(Fuel is either used for the furnace or the hot water heater.)

### D. The Graph

Make a line graph of the Degree Days vs. Month. Use the data from question 4.