1 Word Processing

The homework assignments in ECE 111 have focused on using Latex to compile a professional looking .pdf for each assignment. What are the advantages of Latex compared to traditional WYSIWYG word processors? What are the disadvantages of using Latex?

Write Answer Here

2 Engineering and Business

Terri Fiez talked about Solar Energy during the lecture before Thanksgiving. She brought up the issues of the impending energy crisis, and how engineers will be crucial to solving this problem.

What role will Electrical and Computer Engineers have with solving a future energy crisis?

Insert a Picture And Write The Answer Here

3 Solar Panel Payoff Example Problems

Terri Fiez also brought up some information about solving the time it takes to recoup the installation costs of a solar panel array on a home. Here is the information needed to solve this type of problem:

A typical home installation of solar panels has a maximum power capacity of 2.5 Kilowatts. Each Watt costs $7 to install. The table below shows how much energy a 200 Watt panel would harvest in a location, and how much energy costs at that location.

<table>
<thead>
<tr>
<th>Location</th>
<th>Ammount of Energy a 200Watt Panel Generates</th>
<th>Average Energy Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>PalmSprings, California</td>
<td>572Kilowatthours/year</td>
<td>$.14/Kilowatthour</td>
</tr>
<tr>
<td>Portland, Oregon</td>
<td>252Kilowatthours/year</td>
<td>$.07/Kilowatthour</td>
</tr>
</tbody>
</table>

1. How long would it take to pay off a typical installation in Palm Springs? (Ignore interest rates or anything else complicated that has not been stated in the problem).

2. How long would it take to pay off a typical installation in Portland? (Ignore interest rates or anything else complicated that has not been stated in the problem).

3. How long would it take to pay off a typical installation in Palm Springs? (Assume a 30% discount of the purchase price, due to tax credits.)

4. How long would it take to pay off a typical installation in Palm Springs? (Assume that a future feed-in tariff also doubles the price electricity can be sold back to the utility company.)

5. How much money would you profit, over the 25 year lifetime of the solar panel array?

1http://en.wikipedia.org/wiki/WYSIWYG