2.1 - Inductive Reasoning

1) Test Score and Progress Report

2) Pair up for "Are you Ready"

3) Idea of Unit 2

4) Notes 2.1: "Base it on experience!"

5) Assignment Time

For retaking the Unit 1 Test...

-you may only retake the test once

-must be retaken by October 12

-only before or after school (please let me know)

-if you earned below a 63%, you may retake and earn up to a 70%

-if you earned above a 63%, you may retake and earn up to an 80%
Are You Ready (for Unit 2)??

- pair up with someone
- show any work and all answers
- one paper per group
- answer all questions on pg. 71
- should take less than 20 minutes
- bring to me to correct when you are finished

Look at pg. 80
Number Sets

Venn Diagrams
Big Ideas for Unit 2

2.1 - Based on Experience

**Conjecture**
- a guess based on past experience
- a statement you believe to be true based on...

**Inductive Reasoning**
- a process of reasoning
- making a conjecture based on
  several observations of similar situations

**Counterexample**
- an example that does not work
- proves a conjecture False
Example #1
Do you think the product of an odd number and an even number is odd or even?

<table>
<thead>
<tr>
<th>Odd</th>
<th>Even</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>12</td>
<td>156</td>
</tr>
<tr>
<td>1056</td>
<td>10347</td>
<td></td>
</tr>
</tbody>
</table>

Example #2
True or False?:
Given three points, there are three different lines that contain two of the points.

False
Counterexample:
Example #3
Do you think the following algebraic statement is true or false?

\[ \frac{1}{x} \geq \frac{1}{x^2} \]

<table>
<thead>
<tr>
<th>[x]</th>
<th>[\frac{1}{x}]</th>
<th>[\frac{3}{2}]</th>
<th>[\frac{1}{x^2}]</th>
</tr>
</thead>
<tbody>
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<td>[3]</td>
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<td>[\checkmark]</td>
<td>[\frac{1}{9}]</td>
</tr>
<tr>
<td>[15]</td>
<td>[\frac{1}{15}]</td>
<td>[\checkmark]</td>
<td>[\frac{1}{225}]</td>
</tr>
<tr>
<td>[0]</td>
<td>[\checkmark]</td>
<td>[?]</td>
<td>[\checkmark]</td>
</tr>
<tr>
<td>[-3]</td>
<td>[\checkmark]</td>
<td>[\checkmark]</td>
<td>[\frac{1}{9}]</td>
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</table>

Assignment (Due Friday 9/26)

1) Read over other examples on pg. 74-76

2) Problems: Pg. 77, #11-27, 30-33, 37-39

3) Test Retake???