Modeling Day 1 – ALL MODELS ARE WRONG, SOME MODELS ARE USEFUL!

For each of the following problems,

- Use the TI to find each of the following models (record equation)
  - Linear
  - Exponential
  - Logarithmic
  - Power
- Record r
- Sketch the “line” through each data set
- Sketch the residual plot (residual = observed value – expected value)
- Determine which model is most appropriate

As you work through these problems, make conjectures about

- the value of r
- the role of the residual plot

How can each of these assist you in determining the most appropriate model?
1.

<table>
<thead>
<tr>
<th></th>
<th>( x )</th>
<th>( y )</th>
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<tbody>
<tr>
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<td><strong>( r )</strong></td>
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