

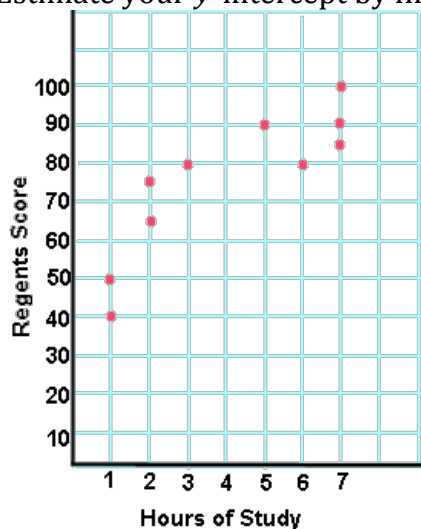
**Review - Writing Linear Equations**

<p><b>Next/Now Statements</b></p>	<p><b>Function Rules</b></p>												
<p>These patterns are called <i>recursive</i>. The rule for the Next item relies on what you got for the Now item.</p> <p>THESE ARE NOT FUNCTION RULES - they only work if you KNOW both the Next and the Now.</p>	<p>These patterns follow rules that work for ANY input, regardless of where you are in the pattern.</p> <p>You can plug in ANY input, follow the rule, and get the correct output.</p>												
<p><u>Ex. 1</u> -3, 9, -27, 81, -243</p> <p>a. <math>Next = Now \cdot -3</math>                  b. <math>Next = Now \cdot 3</math>                  c. <math>Next = Now + 12</math>                  d. <math>Next = Now + 6</math></p>	<p><u>Ex. 2</u> Which expression is the output of <math>n</math>th term?</p> <table border="1" data-bbox="824 472 1531 552"> <tr> <td>Input</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td><math>n</math></td> </tr> <tr> <td>Output</td> <td>5</td> <td>8</td> <td>11</td> <td>14</td> <td></td> </tr> </table> <p>a. <math>n + 3</math>                  b. <math>n + 17</math>                  c. <math>3n + 2</math>                  d. <math>3n - 2</math></p>	Input	1	2	3	4	$n$	Output	5	8	11	14	
Input	1	2	3	4	$n$								
Output	5	8	11	14									
<p><u>You Try 3</u> 15, 8, 1, -6, -13</p> <p>a. <math>Next = Now \cdot -7</math>                  b. <math>Next = Now \cdot 7</math>                  c. <math>Next = Now - 7</math>                  d. <math>Next = Now + 7</math></p>	<p><u>You Try 4</u> Which expression is the output of <math>n</math>th term?</p> <table border="1" data-bbox="824 884 1531 963"> <tr> <td>Input</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td><math>n</math></td> </tr> <tr> <td>Output</td> <td>3</td> <td>1</td> <td>-1</td> <td>-3</td> <td></td> </tr> </table> <p>a. <math>n - 2</math>                  b. <math>n - 5</math>                  c. <math>2n - 5</math>                  d. <math>-2n + 5</math></p>	Input	1	2	3	4	$n$	Output	3	1	-1	-3	
Input	1	2	3	4	$n$								
Output	3	1	-1	-3									

**Scatterplots**

ALWAYS sketch a trend line first.

- Estimate your slope using \_\_\_\_\_.
- Estimate your  $y$ -intercept by finding where the line \_\_\_\_\_.



Which equation could represent the line of best fit?

- a.  $y = -7.5x + 30$
- b.  $y = -7.5x + 45$
- c.  $y = 7.5x + 30$
- d.  $y = 7.5x + 45$

Write a sentence describing this relationship.

Don't forget! Your slope ( $m$ ) is the rate of change and your  $y$ -intercept ( $b$ ) is the starting point!