

# 11.1 Sequence

$$F(n) = a + d(n - 1)$$

$$F(n) = a(r^{n-1})$$

Use the following table to answer the questions for #1-3	Directions: What is the explicit formula for the sequence in the table.	Directions: What is the 10 <sup>th</sup> term?										
<table border="1" data-bbox="94 411 347 596"> <thead> <tr> <th>N</th> <th>F(n)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>4</td> </tr> <tr> <td>2</td> <td>12</td> </tr> <tr> <td>3</td> <td>36</td> </tr> <tr> <td>4</td> <td>108</td> </tr> </tbody> </table>	N	F(n)	1	4	2	12	3	36	4	108	<p>1)</p>	<p>2)</p>
N	F(n)											
1	4											
2	12											
3	36											
4	108											
<p><b>Directions: What term has the value of 8748?</b></p>												
<p>3)</p>												
Use the following table to answer the questions for #4-6	Directions: What is the explicit formula for the sequence in the table.	Directions: What is the 20 <sup>th</sup> term?										
<table border="1" data-bbox="94 926 347 1131"> <thead> <tr> <th>N</th> <th>F(n)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>9</td> </tr> <tr> <td>2</td> <td>23</td> </tr> <tr> <td>3</td> <td>37</td> </tr> <tr> <td>4</td> <td>51</td> </tr> </tbody> </table>	N	F(n)	1	9	2	23	3	37	4	51	<p>4)</p>	<p>5)</p>
N	F(n)											
1	9											
2	23											
3	37											
4	51											
<p><b>Directions: What term has the value of 261?</b></p>												
<p>6)</p>												
<p><b>Mr. Kelly is embarrassed that he hasn't read more books. He pledges to read every night. The first night he reads a half of one page. Each day after that he doubles the amount he reads the night before.</b></p>												
<p>7) What is an explicit formula for this situation?</p>	<p>8) On what day will he be reading 64 pages?</p>											

Mr. Brust wants to prove he's smarter than Mr. Kelly. He reads one page his first day of his new book. The second day he reads 4 pages, the third day he reads 7 pages and so on.

9) What is an explicit formula for this situation?

10) On what day will he have read 64 pages?

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## Corrective Assignment Answers

- 1)  $f(n) = 4(3^{n-1})$       2) 78732      3) 8      4)  $f(n) = 9 + 14(n - 1)$       5) 275  
6) 19    7)  $f(n) = \frac{1}{2}(2^{n-1})$     8) 8    9)  $f(n) = 1 + 3(n - 1)$       10) 22