1. Continue the following patterns:
   1. ababab ...
   2. abbabbabb ...
   3. ababbabbbabbbba ...
2. Continue the following patterns:
   1. 1, 1, 2, 3, 5, 8, ...
   2. 1, 2, 4, 7, 11, 16, 22, ...
   3. 1, 3, 7, 13, 21, ...
   4. 1, 3, 7, 15, 31, ...
   5. 1, 4, 9, 16, 25, ...
3. Look at the following input/output machine. State the pattern rules for both the input numbers and the output numbers. State the rule for the machine.

|  |  |
| --- | --- |
| Input | Output |
| 5 | 12 |
| 10 | 17 |
| 15 | 22 |
| 20 | 27 |
|  |  |
|  |  |
|  |  |

1. Look at the following input/output machine. State the pattern rules for both the input numbers and the output numbers. State the rule for the machine.

|  |  |
| --- | --- |
| Input | Output |
| 500 | 485 |
| 450 | 435 |
| 400 | 385 |
| 350 | 335 |
|  |  |
|  |  |
|  |  |

1. Consider hexagons laid end to end to make a long line of hexagons. Complete the table for different lengths.

|  |  |
| --- | --- |
| Number of  Hexagons | Perimeter |
| 1 | 6 |
| 2 | 10 |
| 3 |  |
| 4 |  |
| 5 |  |

What would the perimeter be if there were 22 hexagons?

1. Consider the line y = 3x +2. Make a table of values and plot the points to draw the line.

|  |  |
| --- | --- |
| x | y |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

1. Consider the line y = 2x + b. If we know that the line goes through the point (10, 24) find b.
2. Consider the following table of values. What is the function?

|  |  |
| --- | --- |
| x | y |
| 1 | 7 |
| 2 | 9 |
| 3 | 11 |
| 4 | 13 |
| 5 | 15 |
| 6 | 17 |
| 7 | 19 |
| 8 | 21 |

1. Consider the following table of values. What is the function?

|  |  |
| --- | --- |
| x | y |
| 1 | 2 |
| 2 | 4 |
| 3 | 8 |
| 4 | 16 |
| 5 | 32 |
| 6 | 64 |