**EXPRESSIONS REVIEW LESSON**

We use expressions to find the value of any term in a pattern. We can make expressions for linear patterns using the format y = mx + b

Leave the y and the x. To find the m and b:

* m = **slope** = the pattern number (the rule)
* b = **y-intercept** = value of term 0

Example: 5, 8, 11…

* the pattern number is + 3 each time. Therefore, m = + 3
* b = term 0 = term 1 – pattern number, so 5 – 3. Therefore, b = 2

SO, **y = 3x + 2** is the equation

**Equations Practice:** For each pattern, figure out the pattern number (the rule) and extend the pattern 4 more terms. Determine the value for Term 0. Then write the algebraic expression for each.

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| --- | --- |
| 1. 3,  7,  11... | 1. 15,  13,  11… |
| 1. 4, 14, 24... | 1. -8, -5, -2 … |
| 1. 8, 5, 2 … | 1. 6, 18, 30 … |
| 1. 4, 9, 14 … | 1. 66, 55, 44 … |

