**Representing Expressions with Stories and Flowcharts**

When we think of stories we usually don’t think of algebra, but mathematical expressionstell stories too! When we see an expression involving a variable, something is happening to that variable. In other words, something is *being done* to the variable. Let’s first use a story to represent what is being done to the variable. Use the order of operations to decide what steps are taken to evaluate the expression.

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| **Expression** | **Story of *x*** |
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We can also represent the *story of x* by a *flowchart*. The flowchart below displays the story of for the expression .



1. Use a flowchart to represent the following expressions involving two operations:











1. Use a flowchart to represent the following expressions involving three operations:









1. Let’s now convert stories to mathematical expressions. Given the story on *x*, write a mathematical expression that describes the story. Use *x* to represent the unknown number.
2. Multiply a number by 7.
3. Add 14 to a number.
4. Subtract a number from 12.
5. Subtract 6 from a number.
6. Divide a number by -3
7. Divide -8 by a number.
8. Multiple a number by 4, then add 3.
9. Multiply a number by 8, then add –11.
10. Subtract 4 from a number, then multiply by 6.
11. Add -1 to a number, then divide by 3.
12. Divide a number by 2, then subtract 13.