



## Vocabulary: Solving Equations by Graphing Each Side



### Vocabulary

- Equation – a mathematical sentence that states that two expressions are equal.
  - The two equal expressions in an equation are written with an *equals sign* (=) between them.
  - For example, the equation  $3x + 4 = 7$  shows that  $3x + 4$  and  $7$  are equal.
- Expression – a combination of one or more numbers, one or more variables, and one or more arithmetic operations.
  - For example,  $x - 2$ ,  $8m$ ,  $r \div 6$ ,  $7$ ,  $3x + 4$ , and  $(2 + (\frac{5}{11})^2 - 0.3)$  are all expressions.
- Identity – an equation that is true for all values of the variable.
  - For example,  $2x = x + x$  is true no matter what value is substituted for  $x$ .
- Solution – a value or values that make an equation or inequality true.
  - For example,  $1$  is the solution of the equation  $3x + 4 = 7$  because it makes the equation true:  $3(1) + 4 = 7$ .

