Two numbers have a sum of 45. You can also say that these two number total 45. Let x represent one of the numbers. Write an algebraic expression for the other number.

- 1) Since we already know that one variable is to be called x, the other can be called y.
- 2) The word "total" or "sum" corresponds to the operation of addition. So we can write the equation x+y=45
- 2) Then we subtract x from both sides, getting an expression for y. x-x+y=45-x setup the subtraction of x from both sides y=45-x simplify, remember that x-x=0 on the left side
- 3) This means that the variable y is represented using the expression 45-x.