

Example 3: Write and solve the equation.
Six times a number increased by three is 15 less than nine times the number. What is the number?

$x = \#$

$$6x + 3 = -15 + 9x \quad \text{or} \quad 6x + 3 = 9x - 15$$

$$\begin{array}{r} 3 = 3x - 15 \\ +15 \quad +15 \\ \hline 18 = 3x \\ \div 3 \quad \div 3 \\ \hline 6 = x \end{array}$$

$6 = x$

Example 4: Write and solve the equation.
One cell phone carrier charges \$40 for service and \$15 for every gigabyte of data used. Another company charges \$30 for service and \$20 for every gigabyte of data used. For how many gigabytes of data do the two companies charge the same amount?

Example 5: Write and solve the equation.
Chad goes to Sonic during happy hour to get his friends some small limeades for \$0.85 and gets a jumbo popcorn chicken for \$5 for himself. Marcus goes the next day to get the same number of people small sweet teas for \$0.60 and gets a family pack of mozzarella sticks for \$8. How many drinks do they both order if they spend the same amount of money?