

(9)

One Step Equations

An algebraic equation is a mathematical statement that two expressions are equal. A solution of an equation is a value of the variable that makes the equation true. To find the solution, isolate the variable.

- Use inverse operations to solve. ^{make it by itself.}

Adding/Subtracting

Ex) $y - 8 = 24$
cancels $\rightarrow +8$ ^{opp. of -8 is $+8$}
 $y = 32$ ^{$+8 \leftarrow$ what we do to one side... we do to the other.}

Ex) $-6 = k - 6$
 $+6$ $+6$
 $0 = k$, $k = 0$

Ex) $16 = m - 9$
 $+9$ $+9$
 $25 = m$, $m = 25$

Ex) $\frac{-5}{11} + p = \frac{-2}{11}$
 $+\frac{5}{11}$ $+\frac{5}{11}$
 $p = \frac{3}{11}$

Multiplying/Dividing

Ex) $-8 = j$
 $\times 3$ ^{opp. of $\div 3$ is $\times 3$}
 $-24 = j$, $j = -24$

Ex) $\frac{y}{3} = -13$
 $\times 3$

$y = -39$

Ex) $\frac{9y}{1} = \frac{108}{9}$
 $y = 12$

Ex) $\frac{5}{6}w = -20$ ^{$\times \frac{6}{5}$}
 $\times \frac{6}{5}$ $-20 \times \frac{6}{5}$
 $w = -24$