

Notes T1-06 Solving One & Two Step Equations

1) Solving Equations.

Steps to Solving Equations:

- 1) Dist. Property  $4(x+2)$   
 $4x+8$
- 2) Comb. Like terms.
- 3) Get all x's on one side
- 4) Get all constant number on other side.
- 5) Multiply or divide to get answers.

Possible Solutions:

- 1) One solution
- 2) no solution  $-3 \neq 8$
- 3) Inf. Solution  
Many Solution  
All Solution  
All Real numbers  
 $x = x$   
or  
 $-3 = -3$

Solving One Step Equations.

$$\begin{array}{r|l} 2) 3 + 1 = n \\ +1 & +1 \\ \hline 4 & = n \\ -4 & -4 \\ \hline -4 & = n \end{array}$$

$$\begin{array}{r|l} 3) n + 11 = 3 \\ -11 & -11 \\ \hline n & = -8 \end{array}$$



$$\begin{array}{r|l} 5) 10 = v \cdot 5 \\ \div 5 & \div 5 \\ \hline 2 & = v \end{array}$$

$$\begin{array}{r|l} 4) x = 10 \cdot 4 \\ \div 4 & \div 4 \\ \hline x & = 40 \end{array}$$

$$\begin{array}{r|l} 6) -3 + m = -16 \\ +3 & +3 \\ \hline m & = -13 \end{array}$$

$$\begin{array}{r|l} 7) x + (-9) = 3 \\ +9 & +9 \\ \hline x & = 12 \end{array}$$

$$\begin{array}{r|l} 8) v - 5 = -16 \\ +5 & +5 \\ \hline v & = -11 \end{array}$$

$$\begin{array}{r|l} 9) v + (-13) = -1 \\ +13 & +13 \\ \hline v & = 12 \end{array}$$

### Solving Two Step Equations

$$10) \frac{n}{8} - 5 = -3$$

<del><math>\frac{n}{8}</math></del>	$-5$	$+5$
$=$	$2 \cdot 8$	$=$
$n$	$=$	$16$

$n = 16$

$$11) \frac{b}{22} + 7 = 6$$

<del><math>\frac{b}{22}</math></del>	$+7$	$-7$
$=$	$-1 \cdot 22$	$=$
$b$	$=$	$-22$

$b = -22$

$$12) -10 + \frac{n}{2} = 1$$

$+10$	$+10$
$\frac{n}{2}$	$= 11 \cdot 2$
$n$	$= 22$

$n = 22$

$$13) x - 10 = 10$$

<del><math>x</math></del>	$-10$	$+10$
$x$	$=$	$20$

$x = 20$

$$14) 7 + \frac{k}{7} = 5$$

<del><math>7</math></del>	$+$	$\frac{k}{7}$	$=$	$5$
$-7$	$-7$	$=$	$-2 \cdot 7$	$=$
$k$	$=$	$-14$	$=$	$-14$

$k = -14$

$$15) -2x + 11 = 15$$

$-2x$	$+11$	$-11$
$-2x$	$=$	$4$
$x$	$=$	$-2$

$x = -2$

$$-16 = 1 + \frac{-8+a}{16}$$

$-16$	$=$	$-8 + a$
$+8$	$+8$	$=$
$-8$	$=$	$a$

$$17) -7 = \frac{n}{2} - 4$$

$+4$	$+4$
$2 \cdot -3$	$\frac{n}{2}$
$-6$	$= n$