

Mrs. Peden

Name and Date: _____

Recall Opposite operationsImportant Terms:

Equation: is ~~is~~ an expression with an equal sign, it can be solved

Variable: a letter used to rep an unknown #

Simplified expression
 $2+3y$
 $-12+2 \div (3+4)$

} equation Solved
 $2+3y=8$

Isolate 'x'

$$x + 10 = 18$$

Left side = Right side
 side side
 R. S.

$$x + 10 - 10 = 18 - 10 \quad \text{L.S.}$$

$$\boxed{x = 8}$$

$x + 10 = 18 - 10$ $x = 8$	$x + 10 = 18 - 10$ $x = 8$
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Solving Equations: By opposite operation

To perform opposite operations, you must:
 1. Discover the opposite operation
 2. Perform that operation to both sides of the equal sign because ***left side has to equal right side of equal sign***

Opposite of $+10$ is -10 (negative 10)
 (minus 10)
 (Subtract 10)

a) $x + 10 = 18$

b) $4 + d = 16$

$4 - 4 + d = 16 - 4$ } $4d = 16 - 4$
 $d = 12$

c) $36 = r - 20$

d) $32 = 16 + k$

$36 + 20 = r - 20 + 20$
 $56 = r$

$32 = 16 + k$
 $16 = k$
 check
 L.S. = R.S.
 $\checkmark 32 = 16 + k$
 $= 16 + 16$
 $= 32 \checkmark$

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Work: page 49 # 7-8 and the work below

Solve the following equations by determining a value for the unknown variable

a) $x + 5 = 25$	b) $81 = f - 10$	c) $12 + d = 32$
d) $15 = r - 5$	e) $11 + k = 25$	f) $a + 14 = 28$
g) $s - 12 = 12$	h) $5 + g = 35$	i) $42 = k - 8$
j) $7 + x = 12$	k) $v + 6 = 18$	l) $x - 20 = 5$
m) $12 + y = 25$	n) $12 = g - 4$	o) $22 = z - 6$