Date _____

Warm-Up

Grade 4th CST # 47	**Review:**
Which number is represented by n? $8 \times n = 128$ A 13 B 14 C 16 D 19	Prime factor 20 three different ways.
Current:	**Other:**
What number goes in the box to make this number sentence true? $54 + \square = 71$	$35 + 6 = 35 + \square$

Today's Objective/Standards: 4AF1.1, 4AF1.5*

Topic: Solving One-Step Equations Using Bar Models **Date:**_____

Text Chapter/Section:_____

Warm-up:

Choose students to debrief on white board or overheads to share with the class.

Review Homework Notes:

Lesson: Note: Relate the Bar Model method to decomposition.

Ex1)

$7 + m = 10$

$7 + m = 7 + 3$

$m = 3$

or

$7 + m = 10$

7	m
10	

7	m
7	3

$\therefore m = 3$

You-try: (Think/Pair/Share)

1)

$x + 5 = 12$

x	5
12	

x	5
7	5

$\therefore x = 7$

Note: Point out the zero pairs and refer to the Identity Property of Multiplication.

Ex2)

$9 - m = 6$

$6 + m = 9$

6	m
9	

6	m
6	3

$\therefore m = 3$

or

$9 - m = 6$

$9 + (^{-}m) = 6$

9	^{-}m
6	

9	^{-}m
6 + 3	$^{-}3$

$^{-}m = {}^{-}3$

$\therefore m = 3$

You-try: (Think/Pair/Share)

2)

$16 - m = 11$

$11 + m = 16$

11	m
16	

11	m
11	5

$\therefore m = 5$

or

$16 - m = 11$

$16 + (^{-}m) = 11$

16	^{-}m
11	

16	^{-}m
11 + 5	$^{-}5$

$^{-}m = {}^{-}5$

$\therefore m = 5$

Ex3)

$m - 3 = 4$

$4 + 3 = m$

4	3
m	

$\therefore m = 7$

or

$m - 3 = 4$

$m + (^{-}3) = 4$

m	$^{-}3$
4	

m	$^{-}3$
4 + 3	$^{-}3$

$\therefore m = 7$

You-try: (Think/Pair/Share)

3)

$y - 6 = 4$

$4 + 6 = y$

4	6
y	

$\therefore y = 10$

or

$y - 6 = 4$

$y + (^{-}6) = 4$

v	$^{-}6$
4	

v	$^{-}6$
4 + 6	$^{-}6$

$\therefore y = 10$

Lesson continued:

Ex 4)

$4v = 12$

v	v	v	v	$= 4v$
3	3	3	3	$= 12$

$\therefore v = 3$

"If four v's equal 12, then what does one v equal?" [3]

You-try: (Think/Pair/Share)

4)

$5m = 20$

m	m	m	m	m	$= 5m$
4	4	4	4	4	$= 20$

$\therefore m = 4$

Ex 5)

$t \div 3 = 4$

t			
4	4	4	

$\therefore t = 12$

"If t is divided into 3 parts and one of those parts is equal to 4, then what is one whole t equal to?" [4+4+4, or 12]

You-try: (Think/Pair/Share)

5)

$z \div 4 = 7$

z			
7	7	7	7

$\therefore z = 28$

Additional Practice Problems:

1) $12 - m = 5$ 2) $6 + n = 11$ 3) $n - 9 = 13$ 4) $c + 15 = 17$

5) $4x = 8$ 6) $14 \div s = 2$ 7) $y \times 5 = 15$ 8) $t \div 3 = 8$

Homework: