Patterning & Algebra

Grade 3

Summative

Name:

Grade level expectations, specific to "Expressions and Equality" (i.e., algebra):	**Target Met**	**Still Progressing**
1. Determine, through investigation, the inverse relationship between addition and subtraction		
2. Determine, the missing number in equations involving addition and subtraction of one- and two-digit numbers, using a variety of tools and strategies		
3. Identify, through investigation, and use the associative property of addition to facilitate computation with whole numbers		

1. Complete the second equation based on the first equation.

a. 10 - 3 = 7 3 + ____ = 10	b. 4 + 20 = 24 24 - _____ = 4
c. 15 - 8 = 7 7 + _____ = 15	d. 6 + 13 = 19 ____ - 6 = 13

1. Marty solves the following question.

65 - 28 = 37

Which number sentence would help Marty check his answer?

- ❏ 65 + 28 = 93
- ❏ 37 - 28 = 9
- ❏ 93 - 65 = 28
- ❏ 37 + 28 = 65

2. What is the missing number? Tell how you know.

a. 5 + 3 = ▉ + 2

b. 5 = 9 - ▉

2 . What is the missing number? Tell how you know.

a. 22 + 35 = ▉ + 36

b. 53 - ▉ = 55 - 19

3. Write an equation to show how you might make each addition easier. For example, 7 + 5 + 3 = 10 + 5.

a. 4 + 9 + 6 = _____ + _____

b. 8 + 3 + 5 + 4 = _____

3. Circle the expression that are worth the same.

a. 7 + 7	6 + 8	3 + 10	11 + 4	0 + 9 + 5
b. 14 - 8	15 - 8	10 - 4	16 - 10	11 - 5

3. Look at the number sentence below.

23 + 18 = _____

Which of the following could be put on the line to make the number sentence true?

- ❑ 20 + 1 +20
- ❑ 20 + 3 + 20
- ❑ 20 + 2 + 20
- ❑ 20 + 4 + 20

3. Joseph adds 63 + 17 in his head. Which of the following will give Joseph the same answer?

- ❑ 60 + 10 + 7
- ❑ 60 + 20 + 10
- ❑ 60 + 10 + 7 + 3
- ❑ 60 + 10 + 10 + 3