

Patterning & Algebra

Grade 4
Diagnostic

Name: _____

Diagnostic - checking to see what they already know (Gr. 3 expectation)	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. $10 - 3 = 7$

$3 + \underline{\quad} = 10$

b. $4 + 20 = 24$

$24 - \underline{\quad} = 4$

c. $15 - 8 = 7$

$7 + \underline{\quad} = 15$

d. $6 + 13 = 19$

$\underline{\quad} - 6 = 13$

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

a. $5 + 3 = \blacksquare + 2$

b. $5 = 9 - \blacksquare$

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

a. $22 + 35 = \blacksquare + 36$

b. $53 - \blacksquare = 55 - 19$

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

a. $4 + 9 + 6 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

b. $8 + 3 + 5 + 4 = \underline{\hspace{1cm}}$

3. Circle the expression that are worth the same.

a. $7 + 7$ $6 + 8$ $3 + 10$ $11 + 4$ $0 + 9 + 5$

b. $14 - 8$ $15 - 8$ $10 - 4$ $16 - 10$ $11 - 5$