

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Lesson 2: Subtraction Note Sheet

### Vocabulary

Subtrahend = The term being subtracted

Minuend = The term being subtracted from

Difference = The resulting term

Label the subtrahend, minuend, and difference in the equation:

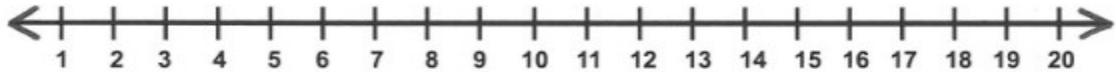
$$\underline{8} - 5 = 3$$

### Subtraction with a Number Line

1.  $9 - 4 = \underline{\quad}$        $\underline{\quad} + 4 = 9$



2.  $17 - 9 = \underline{\quad}$        $\underline{\quad} + 9 = 17$



### Subtracting >1-digit numbers

$$\begin{array}{r} 59 \\ - 23 \\ \hline \end{array}$$

$$\begin{array}{r} 745 \\ - 267 \\ \hline \end{array}$$

$$\begin{array}{r} 23753 \\ - 9999 \\ \hline \end{array}$$

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Properties

Verify or find a counterexample for the following properties:

(# represents any operation.)

Property Name	Definition	Counterexample?	Is it a property for subtraction?
Identity	$a \# 0 = a$ (0 is only the identity for addition and subtraction)	$\underline{\quad} - 0 \neq \underline{\quad}$	
Commutative	$a \# b = b \# a$	$\underline{\quad} - \underline{\quad} \neq \underline{\quad} - \underline{\quad}$	
Associative	$(a \# b) \# c = a \# (b \# c)$	$(\underline{\quad} - \underline{\quad}) - \underline{\quad} \neq \underline{\quad} - (\underline{\quad} - \underline{\quad})$	

Takeaway: Subtraction is neither \_\_\_\_\_ nor \_\_\_\_\_!

## Challenge Problems

1.  $9-8+7-6+5-4+3-2+1$

2.  $(99+98+97+96+95+94+93+\dots+1)+(-1-2-3-4-5-6-7-\dots-99)$