



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

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

## SUBTRACTION

Compute each difference. Show your work by drawing positive (+) and negative (-) counters.

<u>Example A</u> $(-3) - (-2) = -1$ <div style="text-align: right; margin-right: 50px;">  </div> <p>Place 3 (-) counters and remove 2 (-) counters.</p>	<u>Example B</u> $(4) - (-3) = 7$ <div style="text-align: right; margin-right: 50px;">  </div> <p>Place 4 (+) counters and then remove 3 (-) counters. Since there are no (-) counters to remove, add <b>zero pairs</b> first.</p>
1. $(4) - (1) = \underline{\quad}$	2. $(-3) - (-3) = \underline{\quad}$
3. $(-2) - (-1) = \underline{\quad}$	4. $(-6) - (-2) = \underline{\quad}$
5. $(1) - (4) = \underline{\quad}$	6. $(2) - (6) = \underline{\quad}$
7. $(-2) - (-3) = \underline{\quad}$	8. $(-2) - (-4) = \underline{\quad}$
9. $(-3) - (2) = \underline{\quad}$	10. $(-5) - (3) = \underline{\quad}$
11. $(4) - (-1) = \underline{\quad}$	12. $(-4) - (-2) = \underline{\quad}$

What would you tell a classmate who said, "Subtraction makes numbers smaller"?

## COMPARING ADDITION AND SUBTRACTION

Compute each difference. Use positive (+) and negative (-) counters if needed.

1a.  $8 - 4 = \underline{\quad}$

1b.  $8 + (-4) = \underline{\quad}$

2a.  $-7 - 4 = \underline{\quad}$

2b.  $-7 + (-4) = \underline{\quad}$

3a.  $3 - (-1) = \underline{\quad}$

3b.  $3 + 1 = \underline{\quad}$

4a.  $-6 - (-2) = \underline{\quad}$

4b.  $-6 + 2 = \underline{\quad}$

Compare parts (a) and (b) for each problem.

5. Subtracting 4 gives the same result as adding  $\underline{\quad}$ .

6. Subtracting -1 gives the same result as adding  $\underline{\quad}$ .

7. Write an addition expression that is equivalent to  $10 - 5$ .  $\underline{\hspace{2cm}}$

8. Write an addition expression that is equivalent to  $6 - (-3)$ .  $\underline{\hspace{2cm}}$

**Generalizing the rules for subtracting integers.**

9. Subtracting a number gives the same result as adding  $\underline{\hspace{2cm}}$ .

$$a - b = a + (-b), \quad \text{or} \quad a - (-b) = a + b$$

for all integers  $a$  and  $b$