NAME _____ DATE _____ PERIOD _____

Lesson 3 Reteach

Subtracting Integers

Subtract Integers	To subtract an integer, add its additive inverse.

Example 1 Find each difference.

a. 9 − 17

$9 - 17 = 9 + (-17)$ To subtract 17, add −17.

$= -8$ Simplify.

b. −7 − 3

$-7 - 3 = -7 + (-3)$ To subtract 3, add −3.

$= -10$ Simplify.

Example 2 Find each difference.

a. 4 − (−5)

$4 - (-5) = 4 + 5$ To subtract −5, add 5.

$= 9$ Simplify.

b. −6 − (−2)

$-6 - (-2) = -6 + 2$ To subtract −2, add 2.

$= -4$ Simplify.

To find the distance between two integers on a number line, you can count the units on the number line or use absolute value.

Example 3 Find the distance between 4 and −9 on a number line.

$|4 - (-9)| = |13|$ Find the absolute value of the difference of 4 and −9.

$= 13$ Simplify.

Exercises

Find each difference.

1. $9 - 16$ **2.** $7 - 19$ **3.** $12 - 21$

4. $-5 - 3$ **5.** $-8 - 9$ **6.** $-13 - 17$

7. $-24 - 8$ **8.** $18 - (-9)$ **9.** $26 - 49$

10. $-45 - (-26)$ **11.** $-15 - (-25)$ **12.** $29 - (-6)$

Find the distance between the integers on a number line.

13. −2 and −6 **14.** 9 and −9 **15.** 0 and −5

16. −12 and 15 **17.** −1 and −11 **18.** −4 and −16

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Exercises

Find each difference.

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2. $7 - 19$ **-12**

3. $12 - 21$ **-9**

4. $-5 - 3$ **-8**

5. $-8 - 9$ **-17**

6. $-13 - 17$ **-30**

7. $-24 - 8$ **-32**

8. $18 - (-9)$ **27**

9. $26 - 49$ **-23**

10. $-45 - (-26)$ **-19**

11. $-15 - (-25)$ **10**

12. $29 - (-6)$ **35**

Find the distance between the integers on a number line.

13. -2 and -6 **4**

14. 9 and -9 **18**

15. 0 and -5 **5**

16. -12 and 15 **27**

17. -1 and -11 **10**

18. -4 and -16 **12**