

Lesson 3 Reteach

Subtracting Integers

Subtract Integers	To subtract an integer, add its additive inverse.
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Example 1 Find each difference.

a. $9 - 17$

$$\begin{aligned} 9 - 17 &= 9 + (-17) && \text{To subtract 17, add } -17. \\ &= -8 && \text{Simplify.} \end{aligned}$$

b. $-7 - 3$

$$\begin{aligned} -7 - 3 &= -7 + (-3) && \text{To subtract 3, add } -3. \\ &= -10 && \text{Simplify.} \end{aligned}$$

Example 2 Find each difference.

a. $4 - (-5)$

$$\begin{aligned} 4 - (-5) &= 4 + 5 && \text{To subtract } -5, \text{ add } 5. \\ &= 9 && \text{Simplify.} \end{aligned}$$

b. $-6 - (-2)$

$$\begin{aligned} -6 - (-2) &= -6 + 2 && \text{To subtract } -2, \text{ add } 2. \\ &= -4 && \text{Simplify.} \end{aligned}$$

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.

$$\begin{aligned} |4 - (-9)| &= |13| && \text{Find the absolute value of the difference of 4 and } -9. \\ &= 13 && \text{Simplify.} \end{aligned}$$

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