

1-3 Integers and Absolute Value (pp. 14–17)

★ TEKS 8.1.A, 8.14.A, 8.15.A

EXAMPLE

- Evaluate the expression. $|-9| - |3|$

$$\begin{array}{r} |-9| - |3| \\ 9 - 3 \\ 6 \end{array} \quad \begin{array}{l} |9| = 9 \text{ and } |3| = 3 \\ \text{Subtract.} \end{array}$$

EXERCISES

Evaluate each expression.

13. $|7 - 6|$ 14. $|-8| + |-7|$
15. $|15| + |19|$ 16. $|14 + 7|$
17. $|16 - 20|$ 18. $|-7| - |-8|$

1-4 Adding Integers (pp. 18–21)

★ TEKS 8.2.B, 8.14.A, 8.14.D, 8.15.A

EXAMPLE

- Add.

$$\begin{array}{r} -8 + 2 \\ -6 \end{array} \quad \begin{array}{l} \text{Find the difference of } |-8| \text{ and } |2|. \\ 8 > 2; \text{ use the sign of the } 8. \end{array}$$

- Evaluate.

$$\begin{array}{r} -4 + a \text{ for } a = -7 \\ -4 + (-7) \\ -11 \end{array} \quad \begin{array}{l} \text{Substitute.} \\ \text{Same sign} \end{array}$$

EXERCISES

Add.

19. $-6 + 4$ 20. $-3 + (-9)$
21. $4 + (-7)$ 22. $4 + (-3)$
23. $-11 + (-5) + (-8)$

Evaluate.

24. $k + 11$ for $k = -3$
25. $-6 + m$ for $m = -2$

1-5 Subtracting Integers (pp. 22–25)

★ TEKS 8.2.B, 8.14.A, 8.14.D, 8.15.A

EXAMPLE

- Subtract.

$$\begin{array}{r} -3 - (-5) \\ -3 + 5 \\ 2 \end{array} \quad \begin{array}{l} \text{Add the opposite of } -5. \\ 5 > 3; \text{ use the sign of the } 5. \end{array}$$

- Evaluate.

$$\begin{array}{r} -9 - d \text{ for } d = 2 \\ -9 - 2 \\ -9 + (-2) \\ -11 \end{array} \quad \begin{array}{l} \text{Substitute.} \\ \text{Add the opposite of } 2. \\ \text{Same sign} \end{array}$$

EXERCISES

Subtract.

26. $-7 - 9$ 27. $8 - (-9)$
28. $-2 - (-5)$ 29. $13 - (-2)$
30. $-5 - 17$ 31. $16 - 20$

Evaluate.

32. $9 - h$ for $h = -7$
33. $12 - z$ for $z = 17$

1-6 Multiplying and Dividing Integers (pp. 26–29)

★ TEKS 8.2.B, 8.14.A, 8.15.A

EXAMPLE

Multiply or divide.

- $4(-9)$ *The signs are different.*
 -36 *The answer is negative.*
■ $\frac{-33}{-11}$ *The signs are the same.*
 3 *The answer is positive.*

EXERCISES

Multiply or divide.

34. $7(-5)$ 35. $\frac{72}{-4}$
36. $-4(-13)$ 37. $\frac{-100}{-4}$
38. $8(-3)(-5)$ 39. $\frac{10(-5)}{-25}$