1.1 EXERCISES

SKILL PRACTICE

1. **VOCABULARY** Copy and complete: The __?__ of any nonzero number b is $\frac{1}{b}$.

2. **WRITING** Express the associative property of addition in words.

EXAMPLE 1
on p. 2
for Exs. 3–8

GRAPHING NUMBERS Graph the numbers on a number line.

3. $-\frac{3}{4}, 5, \frac{9}{2}, -2, -1$ 4. $-3, \frac{5}{2}, 2, -\frac{9}{4}, 4$ 5. $1, \sqrt{3}, -\frac{2}{3}, -\frac{5}{4}, 2$

6. $6, -\sqrt{5}, 2.7, -2, \frac{7}{3}$ 7. $-0.4, \frac{3}{2}, 0, \sqrt{10}, -1$ 8. $-1.7, 5, \frac{9}{2}, -\sqrt{8}, -3$

EXAMPLE 2
on p. 3
for Exs. 9–10

ORDERING NUMBERS In Exercises 9 and 10, use the table of elevations below.

State	Alabama	California	Kentucky	Louisiana	Tennessee
Highest elevation	2407 ft	14,494 ft	4145 ft	535 ft	6643 ft
Lowest elevation	0 ft	−282 ft	257 ft	−8 ft	178 ft

Louisiana bayou

9. **TAKS REASONING** Which list shows the highest elevations in order from least to greatest?

Ⓐ 2407; 14,494; 4145; 535; 6643   Ⓑ 535; 2407; 4145; 6643; 14,494

Ⓒ 14,494; 2407; 4145; 535; 6643   Ⓓ 14,494; 6643; 4145; 2407; 535

10. **TAKS REASONING** Which list shows the lowest elevations in order from greatest to least?

Ⓐ 0, −8, 178, 257, −282   Ⓑ −282, −8, 0, 178, 257

Ⓒ −282, 257, 178, −8, 0   Ⓓ 257, 178, 0, −8, −282

EXAMPLE 3
on p. 4
for Exs. 11–16

IDENTIFYING PROPERTIES Identify the property that the statement illustrates.

11. $(4 + 9) + 3 = 4 + (9 + 3)$ 12. $15 \cdot 1 = 15$

13. $6 \cdot 4 = 4 \cdot 6$ 14. $5 + (-5) = 0$

15. $7(2 + 8) = 7(2) + 7(8)$ 16. $(6 \cdot 5) \cdot 7 = 6 \cdot (5 \cdot 7)$

EXAMPLE 4
on p. 4
for Exs. 17–22

USING PROPERTIES Use properties and definitions of operations to show that the statement is true. *Justify* each step.

17. $6 \cdot (a \div 3) = 2a$ 18. $15 \cdot (3 \div b) = 45 \div b$

19. $(c - 3) + 3 = c$ 20. $(a + b) - c = a + (b - c)$

㉑ $7a + (4 + 5a) = 12a + 4$ 22. $(12b + 15) - 3b = 15 + 9b$

23. **TAKS REASONING OPEN ENDED MATH** Find values of a and b such that a is a whole number, b is a rational number but not an integer, and $a \div b = -8$.

24. **TAKS REASONING OPEN ENDED MATH** Write three equations using integers to illustrate the distributive property.