

**FINDING SOLUTIONS** Solve the equation using mental math.

44.  $x + (-9) + 9 = 8$

45.  $(-8) + x + (-2) = -10$

46.  $x + (-2.8) + 9.2 = 0$

47.  $-8.7 + x + 1.3 = 0$

**TRANSLATING PHRASES** In Exercises 48 and 49, translate the verbal phrase into an addition expression. Then find the sum.48. The sum of the absolute value of  $-4$  and the additive identity49. The sum of the opposite of  $-18$  and its additive inverse50. **TEXAS TAKS REASONING** If  $a + b$  is negative, which statement must be true?

Ⓐ  $a < 0, b < 0$

Ⓑ  $a < 0$

Ⓒ  $a < 0, b > 0$

Ⓓ  $a < -b$

51. **CHALLENGE** Consider the expression  $|x| + (-x)$ . Write a simplified expression for the sum if  $x$  is positive. Then write a simplified expression for the sum if  $x$  is negative. Give examples to support your answers.52. **CHALLENGE** Evaluate  $-50 + (-49) + (-48) + \cdots + 48 + 49 + 50$ . Explain how you can use the properties of addition to obtain the sum.**PROBLEM SOLVING****EXAMPLE 1**on p. 74  
for Ex. 5353. **WEATHER** The temperature in your city at 6 A.M. was  $-8^{\circ}\text{F}$  and increased by  $15^{\circ}\text{F}$  by noon. What was the temperature at noon?**TEXAS @HomeTutor** for problem solving help at classzone.com**EXAMPLE 2**on p. 75  
for Exs. 54–5554. **PARKING GARAGES** The bottom level of a parking garage has an elevation of  $-45$  feet. The top level of the garage is 100 feet higher. What is the elevation of the top level?**TEXAS @HomeTutor** for problem solving help at classzone.com55. **MULTI-STEP PROBLEM** In optometry, the strength of an eyeglass lens is measured in diopters. Two lenses can be combined to create a new lens, and the sum of their strengths is the strength of the new lens.a. A lens of  $-4.75$  diopters is combined with a lens of  $6.25$  diopters to form a new lens. What is the strength of the new lens?b. A lens of  $-2.5$  diopters is combined with a lens of  $-1.25$  diopters to form a new lens. What is the strength of the new lens?

c. The greater the absolute value of the strength of a lens, the stronger the lens. Which new lens is stronger, the one in part (a) or in part (b)?

**EXAMPLE 4**on p. 76  
for Exs. 56–5756. **TEXAS TAKS REASONING** The table shows the profits for a company from 1999 to 2004. Which three-year period had the greatest total profit?

Year	1999	2000	2001	2002	2003	2004
Profit (millions of dollars)	-13.76	54.91	38.54	-21.33	123.90	-14.82

Ⓐ 1999–2001

Ⓑ 2000–2002

Ⓒ 2001–2003

Ⓓ 2002–2004