- 28. Be Precise Nan was $59\frac{7}{8}$ inches tall at the end of summer. She was $62\frac{1}{8}$ inches by March. How much did she grow during that time? (Example 5)
- **29.** Yahto needs $3\frac{3}{4}$ cups of sugar to make cookies. He needs an additional $\frac{3}{4}$ cup for bread. Yahto needs $3\frac{\pi}{4}$ cups of sugar that Yahto needs. (Example 5) $5 - 8 = -3 \qquad 5 + (-8) = -3$ (Example 5)

Find the distance between each pair of points. Simplify if necessary. (Example 6)

30. $-\frac{5}{8}$ and $\frac{1}{8}$ 31. $-\frac{7}{15}$ and $-\frac{4}{15}$ 32. $-\frac{1}{8}$ and $\frac{3}{8}$ 33. $-\frac{3}{16}$ and $\frac{3}{16}$ $\frac{4}{9} + (-\frac{22}{9}) + (-\frac{5}{9})$

30.
$$-\frac{5}{8}$$
 and $\frac{1}{8}$

31.
$$-\frac{7}{15}$$
 and $-\frac{4}{15}$

32.
$$-\frac{1}{8}$$
 and $\frac{3}{8}$

33.
$$-\frac{3}{16}$$
 and $\frac{3}{16}$

Find each sum or difference. Write in simplest form.

34.
$$-2\frac{9}{10} + \left(-9\frac{9}{10}\right) + \left(-6\frac{9}{10}\right)\frac{1}{9} + \left(-\frac{5}{9}\right) = -\frac{4}{9}$$
 35. $\frac{1}{9} - 2\frac{4}{9} - \frac{5}{9}$ $\frac{1}{9} + \left(-\frac{27}{9}\right)$

35.
$$\frac{1}{9} - 2\frac{4}{9} - \frac{5}{9}$$

- **36.** A triathlon is a race with swimming, biking, and running. If an athlete swims for $-\frac{2b}{6}$ 18 $\frac{2}{4}$ minutes, bikes for 59 $\frac{1}{4}$ minutes, and runs for 37 $\frac{3}{4}$ minutes, what is his total time?

 18+59+37=1/4 $\frac{2}{4}+\frac{1}{4}+\frac{3}{4}=\frac{1}{4}=\frac{1}{2}$ 115 $\frac{1}{2}$ - $\frac{8}{4}$ 117 The table shows the weight of Leon's dog during its first 5 years.

Age (years)	1	2	3	4	5
Weight (pounds)	17 2 8	18 5	19 4 8	18 3	20 7/8

- a. How much weight did Leon's dog gain or lose between years 3 and 4? between years 1 and 5?
- **b.** If Leon's dog gains $1\frac{3}{8}$ pounds each year between years 5 and 7, how much will his dog weigh?
- **38.** A lasagne recipe uses $1\frac{2}{4}$ teaspoons basil, $\frac{1}{4}$ teaspoon pepper, and 4 teaspoons parsley. If you double the recipe, how many teaspoons of seasoning will you use?



H.O.T. Problems Higher Order Thinking

- 39. Use Math Tools Write a subtraction problem with a difference of $-\frac{2}{3}$.
- 40. CSS Persevere with Problems Lopez Construction is replacing a window in a house. The window is currently 3 feet wide by 4 feet tall. The homeowner wants to add 9 inches to each side of the window. What is the new perimeter of the window in feet? Justify your reasoning.
- 41. Find the Error Xavier said the sum of $-4\frac{1}{9}$ and $1\frac{7}{9}$ is $-3\frac{8}{9}$. Is he correct? Explain your reasoning.
- 42. Use Math Tools Explain how you could use mental math to find the following sum. Then find the sum. Support your answer with a model.

$$1\frac{1}{4} + 2\frac{1}{3} + 3\frac{2}{3} + 4\frac{1}{2} + 5\frac{1}{2} + 6\frac{3}{4}$$

- 43. Q Building on the Essential Question Write a real-world problem about cooking that can be solved by adding or subtracting fractions. Then solve the problem.
- 124 Chapter 3 Operations With Rational Numbers

