

24. Which street is parallel to Ramona?
(54)

25. Which street is neither perpendicular nor parallel to Garvey?
(54)

$$\frac{4}{4} \xrightarrow{4} \frac{1}{4} \quad \frac{5}{4} \xrightarrow{4} \frac{1\frac{1}{4}}{5}$$

$$\frac{4}{0} \quad \frac{4}{1}$$

The fraction $\frac{4}{4}$ equals 1. The fraction $\frac{5}{4}$ equals $1\frac{1}{4}$.

LESSON 84 Changing Improper Fractions to Whole or Mixed Numbers

Facts Practice: 100 Multiplication Facts (Test C in Test Masters)

Mental Math: How many inches are in a foot? How many feet are in a yard? Hold your fingers an inch apart. Hold your hands a yard apart.

- a. CCLXVI b. CLXXIX c. $\frac{1}{3}$ of 36
d. $360 \div 30$ e. $\sqrt{81}$, -1 , $\times 10$, $+1$, $\div 9$, -9

Problem Solving: Sam takes about 600 steps when he walks around the block. In 6 steps Sam travels about 15 feet. About how many feet does Sam travel when he walks around the block?

A fraction may be less than 1, equal to 1, or greater than 1. A fraction that is equal to 1 or is greater than 1 is called an **improper fraction**. An improper fraction has a numerator equal to or greater than the denominator.

Less than 1 Equal to 1 Greater than 1

$$\frac{3}{4} \quad \frac{4}{4} \quad \frac{5}{4}$$

Improper fractions

Every improper fraction can be changed either to a whole

divided by 4. If we actually divide an improper fraction, the answer will be a whole number or a mixed number.

Example 1 Compare: Any improper fraction $\bigcirc \frac{99}{100}$

Solution Any improper fraction is equal to or greater than 1. We know that the fraction $\frac{99}{100}$ is slightly less than 1. Thus, any improper fraction is greater than $\frac{99}{100}$. We replace the circle with the symbol $>$. Therefore, our answer is

Any improper fraction $> \frac{99}{100}$

Example 2 Write the fraction $\frac{8}{5}$ as a mixed number.


Solution If the numerator is equal to or greater than the denominator, the fraction is equal to or greater than 1. The fraction line is a division sign. We may read the fraction $\frac{8}{5}$ as 8 divided by 5. We divide and write the remainder as a fraction.

$$1\frac{3}{5}$$

Practice Convert each improper fraction into a whole number or a mixed number:

- a. $\frac{2}{2}$ b. $\frac{5}{2}$ c. $\frac{5}{3}$ d. $\frac{9}{4}$

Problem set 84

1. Name the coin that is equal to half of a half dollar. (80)
2. A number is divisible by 2 if it can be divided by 2 without a remainder. Even numbers are divisible by 2. What is the greatest two-digit number that is divisible by 2? (81)
3. In which of these numbers does the 5 have the greatest value? (82)
A. 34.56 B. 35.64 C. 53.46 D. 64.35
4. Use the digits 2, 3, and 4 once each to make the greatest three-digit odd number possible. (83)
5. When the decimal number two and twenty-five hundredths is added to six and seventeen hundredths, what is the sum? (84)
6. List the factors of 30. (85)
7. Which digit in 16.34 is in the same place as the 2 in 2.875? (86)
8. Name the number of shaded circles as a mixed number and as a decimal number. (87)

9. Three twelfths of a circle is what percent of a circle? (88)
10. How many yards is one half of a mile? (89)
11. Change the improper fraction $\frac{10}{3}$ to a mixed number. (90)
12. Compare: Any improper fraction $\bigcirc \frac{9}{10}$ (91)
13. Segment XY measures 3.2 centimeters. Segment YZ (92)

$$14. (345 + 57 + 219) \div 3 \quad 15. \$10 - (36\text{¢} + \$1.42)$$

$$16. \begin{array}{r} 37.6 \\ 98.4 \\ + 76.8 \\ \hline \end{array} \quad 17. \begin{array}{r} 430.10 \\ - 396.27 \\ \hline \end{array} \quad 18. \begin{array}{r} \$20.46 \\ \times \quad 5 \\ \hline \end{array}$$

$$19. 8 \overline{) \$10.00} \quad 20. \begin{array}{r} 3600 \\ 50 \\ \hline \end{array} \quad 21. \begin{array}{r} 398 \\ \times 746 \\ \hline \end{array}$$

$$22. 9 + 1\frac{1}{3} \quad 23. 1 - \frac{3}{3} \quad 24. 10 - 1\frac{1}{10}$$

25. If it is morning, what time will be shown by the clock in $6\frac{1}{2}$ hours?

