

MAIN IDEA

- Write mixed numbers as improper fractions and vice versa.

BUILD YOUR VOCABULARY (pages 86–87)

A **mixed number** indicates the sum of a

and a .

A **proper fraction** is a fraction in which the numerator is

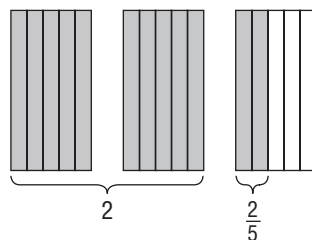
the denominator.

An **improper fraction** is a fraction in which the numerator is

or equal to the denominator.

EXAMPLE Mixed Numbers as Improper Fractions

- 1 ASTRONOMY** If a spaceship lifts off the Moon, it must travel at a speed of $2\frac{2}{5}$ kilometers per second in order to escape the pull of the Moon's gravity. Write this speed as an improper fraction.

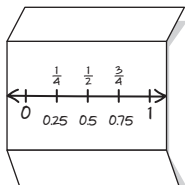


$$2\frac{2}{5} = \frac{(2 \times \boxed{}) + \boxed{}}{\boxed{}} = \boxed{}$$

Multiply the whole number and denominator. Then add the numerator.

FOLDABLES**ORGANIZE IT**

Summarize how mixed numbers can be written as improper fractions and improper fractions can be written as mixed numbers under the fraction tab of your Foldable.



REMEMBER IT

Improper fractions that are equal to 1, such as $\frac{1}{1}$ and $\frac{9}{9}$, cannot be written as mixed numbers.

Check Your Progress

EXERCISE As part of a regular exercise program, Max walks $2\frac{3}{8}$ miles each morning. Write this distance as an improper fraction.

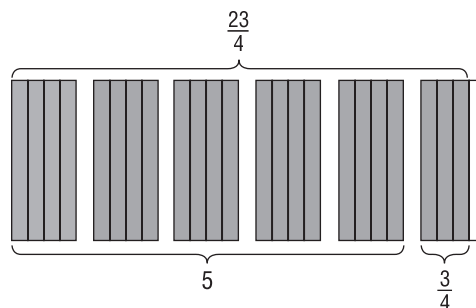
EXAMPLE**Improper Fractions as Mixed Numbers**

1 Write $\frac{23}{4}$ as a mixed number.

Divide 23 by 4.

$$\begin{array}{r} \boxed{} \frac{3}{4} \\ 4 \overline{)23} \\ \underline{-20} \\ 3 \end{array}$$

Use the remainder as the numerator and the divisor as the denominator of the fraction.



So, $\frac{23}{4} = \boxed{} \frac{3}{4}$.

Check Your Progress

Write $\frac{23}{3}$ as a mixed number.

HOMEWORK ASSIGNMENT

Page(s):

Exercises: