

3.3

Write an Improper Fraction as a Mixed Number

• Example 1

Convert $\frac{17}{5}$ to a mixed number.

Divide 17 by 5.

$$\begin{array}{r} 3 \\ 5 \overline{)17} \\ \underline{15} \\ 2 \end{array}$$

The quotient is 3 and the remainder is 2.

Thus, $17 = 3 \times 5 + 2$

$$\begin{aligned} \frac{17}{5} &= \frac{3 \times 5 + 2}{5} \\ &= \frac{3 \times 5}{5} + \frac{2}{5} \\ &= 3 + \frac{2}{5} \end{aligned}$$

In mixed number notation, we write $\frac{17}{5} = 3\frac{2}{5}$.

• • • CHECK YOURSELF 1

Convert $\frac{32}{5}$ to a mixed number.

• Example 2

Convert $\frac{21}{7}$ to a mixed or a whole number.

Divide 21 by 7.

If there is *no* remainder, the improper fraction is equal to some whole number; in this case 3.

$$\begin{array}{r} 3 \\ 7 \overline{)21} \\ \underline{21} \\ 0 \end{array} \quad \frac{21}{7} = 3$$

● ● ● CHECK YOURSELF 2

Convert $\frac{48}{6}$ to a mixed or a whole number.

● ● ● CHECK YOURSELF ANSWERS

1. $6\frac{2}{5}$. 2. 8.
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3.3 Exercises

Name _____

Section _____

Date _____

Change to a mixed or a whole number.

1. $\frac{7}{2}$

2. $\frac{8}{3}$

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

4. $\frac{9}{7}$

5. $\frac{22}{5}$

6. $\frac{27}{8}$

7. $\frac{34}{5}$

8. $\frac{25}{6}$

9. $\frac{59}{5}$

10. $\frac{58}{7}$

11. $\frac{73}{8}$

12. $\frac{151}{12}$

13. $\frac{24}{6}$

14. $\frac{160}{8}$

15. $\frac{9}{1}$

16. $\frac{8}{1}$

17. $\frac{5}{3}$

18. $\frac{7}{6}$

19. $\frac{44}{7}$

20. $\frac{51}{8}$

21. $\frac{300}{7}$

22. $\frac{17}{4}$

23. $\frac{74}{8}$

24. $\frac{18}{6}$

A N S W E R S

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