

Lesson 2.2 Reducing to Simplest Form

A fraction is in simplest form when the greatest common factor of the numerator and denominator is 1. A mixed numeral is in simplest form when its fraction is in simplest form and has a value between 0 and 1. Divide the numerator and denominator by their greatest common factor.

$$\frac{6}{12} = \frac{6 \div 6}{12 \div 6} = \frac{1}{2}$$

$$7\frac{14}{21} = \frac{14 \div 7}{21 \div 7} = 7\frac{2}{3}$$

Write each of the following in simplest form.

- | a | b | c |
|-----------------------------|---------------------------|---------------------------|
| 1. $\frac{18}{20}$
_____ | $3\frac{18}{24}$
_____ | $\frac{25}{95}$
_____ |
| 2. $\frac{14}{28}$
_____ | $\frac{36}{40}$
_____ | $9\frac{8}{12}$
_____ |
| 3. $\frac{36}{48}$
_____ | $7\frac{4}{12}$
_____ | $\frac{27}{36}$
_____ |
| 4. $8\frac{9}{12}$
_____ | $6\frac{5}{20}$
_____ | $4\frac{50}{70}$
_____ |
| 5. $4\frac{3}{15}$
_____ | $\frac{16}{32}$
_____ | $2\frac{12}{52}$
_____ |

Lesson 2.4 Renaming Fractions and Mixed Numerals

Every whole number can be written as a fraction with a denominator of 1.

$$3 = \frac{3}{1} \quad 10 = \frac{10}{1} \quad 25 = \frac{25}{1}$$

Change $2\frac{3}{4}$ to a fraction.

$$\begin{aligned} 2\frac{3}{4} &= \frac{2}{1} + \frac{3}{4} = \frac{2 \times 4}{4} + \frac{3}{4} \\ &= \frac{8+3}{4} = \frac{11}{4} \end{aligned}$$

Change $\frac{15}{6}$ to a mixed numeral.

$$\frac{15}{6} = 6 \overline{)15} \frac{2}{6} = 2\frac{3}{6} = 2\frac{1}{2}$$

Change each of the following to a fraction. Reduce to simplest form.

	a	b	c	d
1.	$3\frac{5}{8}$ _____	9 _____	$2\frac{3}{7}$ _____	$5\frac{1}{2}$ _____
2.	$1\frac{2}{16}$ _____	$8\frac{3}{12}$ _____	14 _____	$3\frac{5}{6}$ _____
3.	$4\frac{1}{3}$ _____	$4\frac{7}{9}$ _____	$1\frac{2}{5}$ _____	47 _____

Change each of the following to a mixed numeral in simplest form.

4.	$\frac{10}{3}$ _____	$\frac{23}{8}$ _____	$\frac{9}{6}$ _____	$\frac{39}{7}$ _____
5.	$\frac{15}{4}$ _____	$3\frac{8}{3}$ _____	$\frac{18}{12}$ _____	$5\frac{5}{3}$ _____
6.	$\frac{19}{11}$ _____	$\frac{42}{10}$ _____	$7\frac{12}{5}$ _____	$\frac{52}{11}$ _____