

Lesson 4.8 Simplifying Mixed Numbers

A mixed number is in simplest form if its fraction is in simplest form and names a number less than 1.

The greatest common factor of 8 and 12 is 4.

$$\begin{aligned} 3\frac{8}{12} \\ 3 + \frac{8 \div 4}{12 \div 4} &= \frac{2}{3} \\ 3\frac{8}{12} &= 3\frac{2}{3} \end{aligned}$$

$$\begin{aligned} 2\frac{9}{4} &= 2 + \frac{9}{4} \\ \uparrow \quad 2 + (2\frac{1}{4}) &= 4\frac{1}{4} \\ \text{not in simplest form} \end{aligned}$$

Reduce each mixed number to simplest form.

a**b****c****d**

1. $3\frac{6}{8}$ _____ $2\frac{12}{15}$ _____ $1\frac{9}{12}$ _____ $4\frac{10}{15}$ _____

2. $2\frac{8}{5}$ _____ $3\frac{15}{4}$ _____ $1\frac{7}{3}$ _____ $2\frac{5}{2}$ _____

3. $4\frac{4}{8}$ _____ $5\frac{6}{9}$ _____ $8\frac{12}{20}$ _____ $7\frac{4}{16}$ _____

4. $2\frac{10}{4}$ _____ $3\frac{3}{2}$ _____ $7\frac{8}{12}$ _____ $5\frac{3}{9}$ _____

5. $2\frac{10}{3}$ _____ $4\frac{6}{5}$ _____ $3\frac{15}{7}$ _____ $2\frac{20}{9}$ _____