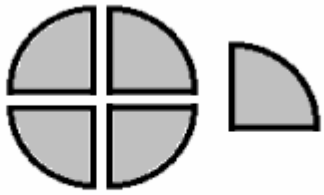
MIXED NUMBERS

FACT 1: An IMPROPER fraction may be expressed as a mixed number.



$$\frac{5}{4} = 5 \text{ of } \frac{1}{4} = 4 \text{ of } \frac{1}{4} + \frac{1}{4} = 1\frac{1}{4}$$

This may be also accomplished by dividing the numerator by the denominator. There will be a whole number and a remainder. The remainder is expressed as a fraction.

$$\text{or, } \frac{5}{4} = 5 \div 4 = 1 + \frac{1}{4} = 1\frac{1}{4}$$

$$\frac{17}{3} = 17 \div 3 = 5\frac{2}{3}$$

FACT 2: A MIXED NUMBER may be expressed as an improper fraction.

$$1\frac{1}{3} = \frac{3}{3} + \frac{1}{3} = \frac{4}{3}$$

This may be also accomplished by multiplying the whole number by the denominator and adding the numerator as follows,

$$\text{Or, } 1\frac{1}{3} = \frac{(3 \times 1) + 1}{3} = \frac{4}{3}$$

$$\text{Similarly, } 2\frac{2}{5} = \frac{(5 \times 2) + 2}{5} = \frac{12}{5}$$

$$5\frac{3}{8} = \frac{(8 \times 5) + 3}{8} = \frac{43}{8}$$

1. **Express each of the following improper fractions as a mixed numbers.**

   (a) $\frac{4}{3}$ (b) $\frac{15}{8}$ (c) $\frac{11}{5}$ (d) $\frac{13}{3}$ (e) $\frac{39}{10}$ (f) $\frac{108}{12}$

   Answer: (a) 1 1/3 (b) 1 7/8 (c) 2 1/5 (d) 4 1/3 (e) 3 9/10 (f) 9

2. **Express each of the following mixed numbers as improper fractions.**

   (a) $1\frac{1}{2}$ (b) $1\frac{1}{6}$ (c) $4\frac{3}{5}$ (d) $5\frac{8}{9}$ (e) $5\frac{11}{12}$ (f) $9\frac{5}{7}$

   Answer: (a) 3/2 (b) 7/6 (c) 23/5 (d) 53/9 (e) 71/12 (f) 68/7

End of Lesson