

5.6 Improper Fractions and Mixed Numbers

Proper fractions
Value is less than 1
The numerator is less than the denominator

Improper when the numerator is more than the denominator

$$\frac{13}{12} \quad \frac{24}{5} \quad \frac{121}{120}$$

Mixed Number
two parts
Whole number and proper fraction

$$3\frac{1}{2} \quad 7\frac{19}{29} \quad 123\frac{1295}{1300}$$

Mixed to improper

$$7\frac{3}{8} = \frac{(8 \times 7) + 3}{8} = \frac{59}{8}$$

$$12\frac{4}{7} = \frac{(7 \times 12) + 4}{7} = \frac{88}{7}$$

Improper to Mixed

$$\frac{37}{4} \quad 4 \overline{) 37} \begin{array}{r} 9 \text{ r } 1 \\ \underline{36} \\ 1 \end{array} \quad 9\frac{1}{4}$$

Quotient is the Whole number
Remainder is the numerator
Divisor is the denominator

$$19.0$$

$$\frac{57}{3} \quad 19\frac{0}{3}$$

$$\begin{array}{l} 5 \overline{) 7} \\ \underline{5} \\ 2 \\ \underline{10} \\ 2 \end{array} \quad \begin{array}{l} 5 \overline{) 7} \text{ r } 2 \\ \underline{5} \\ 2 \\ \underline{10} \\ 2 \end{array}$$

$\frac{2}{5}$

$\frac{2}{5}$

Between

$$4\frac{3}{5} \quad 5$$
$$7\frac{1}{2} \quad 7\frac{3}{4}$$
$$7\frac{4}{8} \quad 7\frac{6}{8} \quad 7\frac{8}{16} \quad 7\frac{12}{16}$$

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