

Chapter 6

Adding and Subtracting Fractions

6.1 Fraction Estimation

$\frac{a}{b}$ where $a < b$
proper fraction

$$\frac{1}{4} \quad \frac{3}{8} \quad \frac{9}{16} \quad \frac{137}{143}$$

approximate value

In decimal

$$\begin{array}{l} 0.49 \approx 0 \\ 0.98 \approx 1 \\ 0.01 \approx 0 \end{array} \quad \begin{array}{l} <.5 \downarrow \\ \geq .5 \uparrow \end{array}$$

Three values to round to

$$0 \quad \frac{1}{4} \quad \frac{1}{2} \quad \frac{3}{4} \quad 1$$

$$\frac{2}{9} \approx 0 \quad \frac{137}{143} \approx 1$$

$$\frac{7}{15} \approx \frac{1}{2} \quad \frac{7}{29} \approx 0$$

$$\frac{7}{8} \approx 1 \quad \frac{1}{3} \approx \frac{1}{2}$$

$$\frac{4}{9} \approx \frac{1}{2} \quad \frac{12}{49} \approx 0$$

Mixed Numbers works like decimals

Round to the nearest whole number

$$7\frac{1}{8} \approx 7$$

If fraction is more than $\frac{1}{2}$ \uparrow
" is less than $\frac{1}{2}$ \downarrow

or equals

$$12\frac{3}{8} \approx 12 \text{ is } \begin{matrix} \text{high} \\ \text{low} \end{matrix} > \frac{1}{2} \\ < \frac{4}{8}$$

$$7\frac{13}{25} \approx 8$$

Fractions

$$0, \frac{1}{2}, 1$$

Mixed Numbers
round to whole number
there is no $\frac{1}{2}$

$$7\frac{3}{4} + 2\frac{1}{3}$$

$$8 + 2 \approx 10$$

$$1\frac{3}{4} - \frac{1}{9}$$

$$2 - 0 \approx 2$$

$$\frac{11}{24} + \frac{3}{8}$$

$$\rightarrow \frac{1}{2} + \frac{1}{2} = 1$$

$$1\frac{1}{11} - \frac{3}{8}$$

$$\rightarrow 1 - \frac{1}{2} = \frac{1}{2}$$

$$7\frac{3}{4} + 2\frac{1}{8} \approx 11 \text{ High}$$

$$8 + 2 \approx 10$$

$$9\frac{1}{4} - 2\frac{6}{8} \approx 5 \text{ Low}$$

$$9 - 2 \approx 7$$

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2-38 even