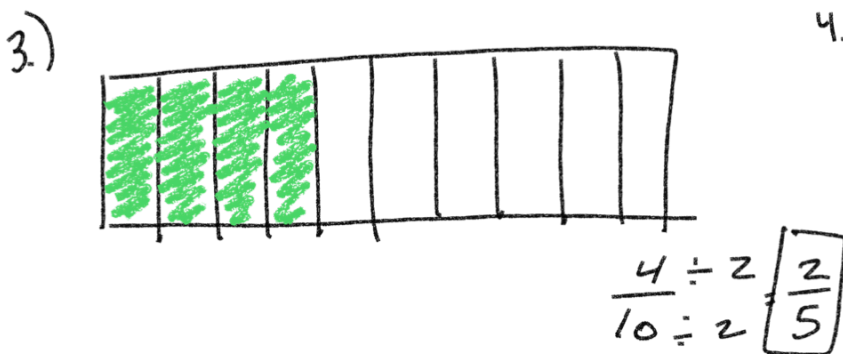
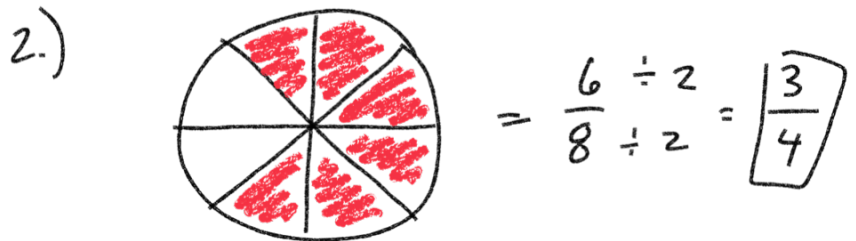
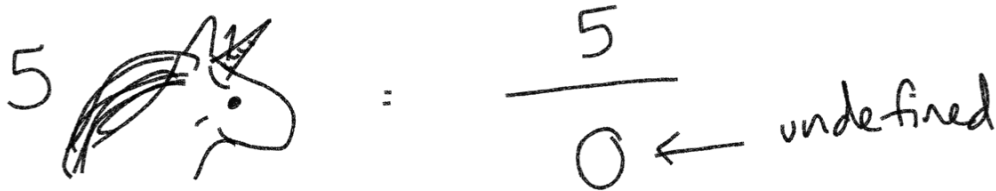
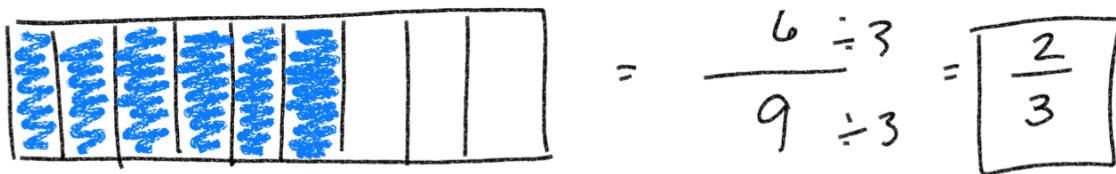


Fractions = $\frac{\text{numerator}}{\text{denominator}}$ = $\frac{\text{part}}{\text{whole}}$



Most reduced form



Improper fraction

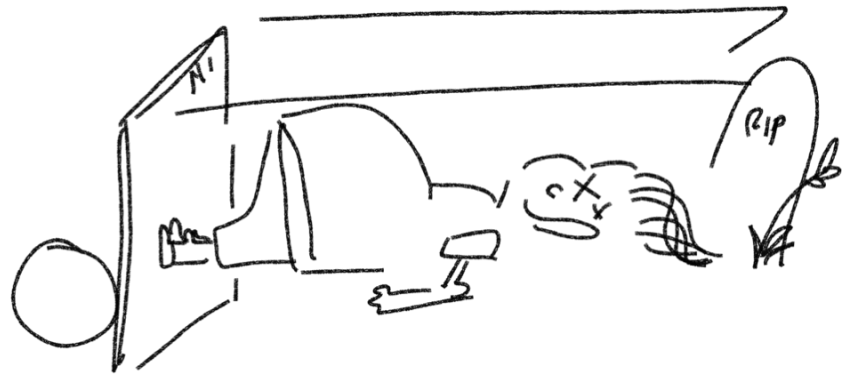
"Top Heavy"
Improper fraction \Rightarrow mixed number

$$\frac{15}{4}$$



\rightarrow $\frac{15}{4}$ \rightarrow $4 \overline{)15}$ \rightarrow $3 \frac{3}{4}$

The diagram shows the conversion of the improper fraction $\frac{15}{4}$ to the mixed number $3 \frac{3}{4}$. It includes a long division problem where 4 goes into 15 three times with a remainder of 3. The quotient 3 is boxed in red, and the remainder 3 is boxed in blue. The final mixed number $3 \frac{3}{4}$ is shown in a box, with the whole number 3 in red and the fraction $\frac{3}{4}$ in green.



$\frac{13}{2}$ \rightarrow $2 \overline{)13}$ \rightarrow $6 \frac{1}{2}$

The diagram shows the conversion of the improper fraction $\frac{13}{2}$ to the mixed number $6 \frac{1}{2}$. It includes a long division problem where 2 goes into 13 six times with a remainder of 1. The quotient 6 is labeled "whole number" and the remainder 1 is labeled "num". The final mixed number $6 \frac{1}{2}$ is shown in a box, with the whole number 6 labeled "whole number" and the fraction $\frac{1}{2}$ labeled "num" and "den".

Convert Improper fraction to a mixed number.

1.) $\frac{14}{5}$ $5 \overline{) 14} \begin{array}{r} 2 \\ -10 \\ \hline 4 \end{array} \boxed{2 \frac{4}{5}}$ 2.) $\frac{61}{9}$ $9 \overline{) 61} \begin{array}{r} 6 \\ -54 \\ \hline 7 \end{array} \boxed{6 \frac{7}{9}}$

3.) $\frac{51}{10}$ $10 \overline{) 51} \begin{array}{r} 5 \\ -50 \\ \hline 1 \end{array} \boxed{5 \frac{1}{10}}$ 4.) $\frac{41}{5}$ $5 \overline{) 41} \begin{array}{r} 8 \\ -40 \\ \hline 1 \end{array} \boxed{8 \frac{1}{5}}$

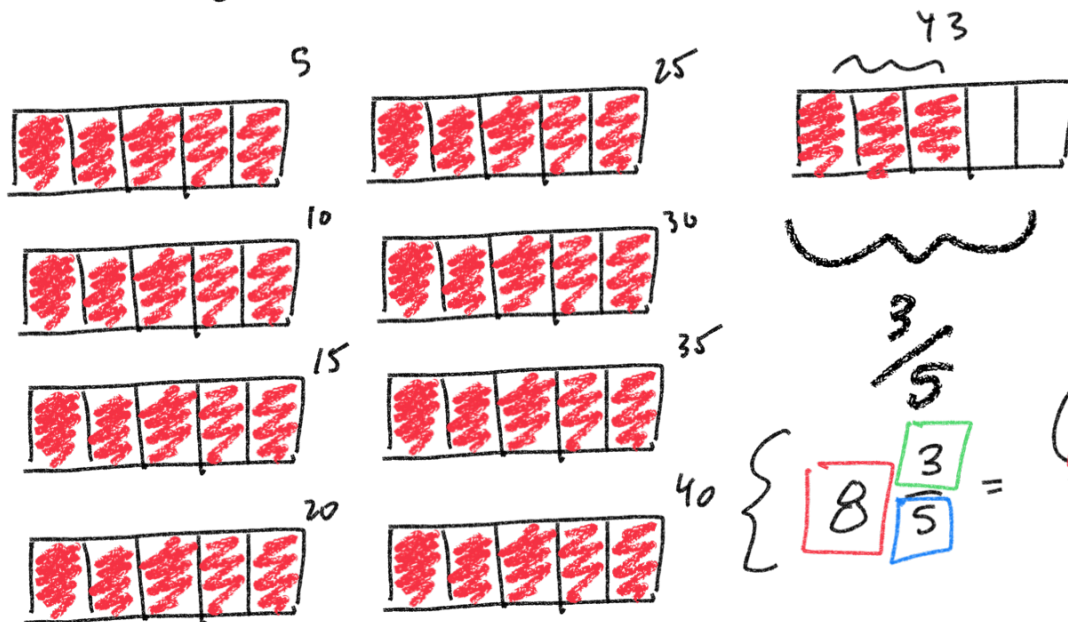
This school year Nate has received 78 speeding tickets. If he decided to pass on his penalties to his students, how many tickets would each have to pay if there are 12 students?

$12 \overline{) 78} \begin{array}{r} 6 \\ -72 \\ \hline 6 \end{array} \boxed{6 \frac{1}{2}}$

$6 \frac{6 \div 6}{12 \div 6}$

whole
 $8 \frac{3}{5}$

Mixed number \rightarrow Improper fraction



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

numerator
 8

$$6 \frac{1}{7} = \frac{(6 * 7) + 1}{7}$$

$$\left\{ \begin{array}{l} \downarrow \\ 7 \frac{2}{3} \\ \uparrow \end{array} \right. = \frac{(7 * 3) + 2}{3} = \frac{21 + 2}{3} = \frac{23}{3}$$

denominator

$$\frac{42 + 1}{7} = \frac{43}{7}$$

$$\frac{2}{7} + \frac{4}{7} = \frac{6}{7}$$

$$\frac{1}{5} + \frac{3}{5} = \frac{4}{5}$$

$$\frac{8}{9} - \frac{2}{9} = \frac{6}{9} \div 3 = \frac{2}{3}$$

$$1.) \frac{1}{6} + \frac{3}{6} = \frac{4}{6} \div 2$$
$$\frac{2}{3}$$

$$2.) \frac{7}{8} - \frac{3}{8} = \frac{4}{8} \div 4$$
$$\frac{1}{2}$$

$$3.) \frac{5}{8} + \frac{7}{8} = \frac{12}{8}$$

whole number \rightarrow 1

$$\begin{array}{r} 8 \overline{) 12} \\ \underline{- 8} \\ 4 \end{array}$$
$$\frac{4}{8} \div 4$$
$$\frac{1}{2}$$

$$4.) \frac{3}{4} + \frac{2}{4} = \frac{5}{4}$$
$$\begin{array}{r} 1 \\ 4 \overline{) 5} \\ \underline{- 4} \\ 1 \end{array}$$
$$\frac{1}{4}$$