

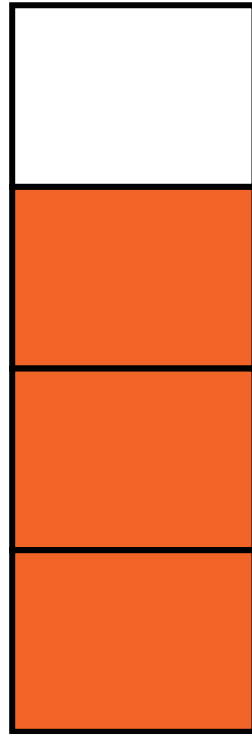
# Fractions

**4-group Math.**  
by Kuske Math.

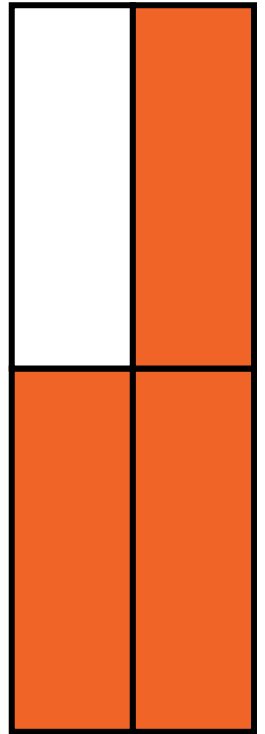
The Original  
4-group™  
Fraction Model

# Fractions

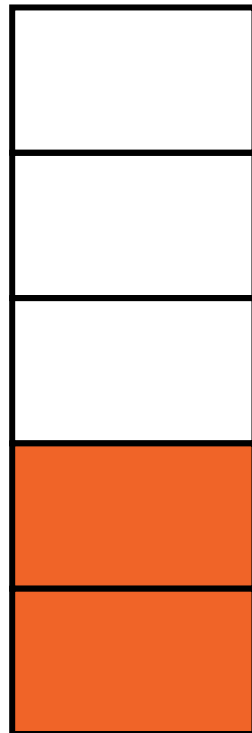
I have  
 $\frac{3}{4}$  of the  
parts



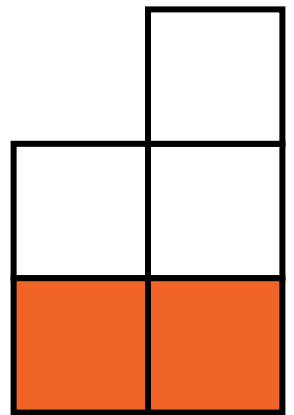
or



I have  
 $\frac{2}{5}$  of the  
parts



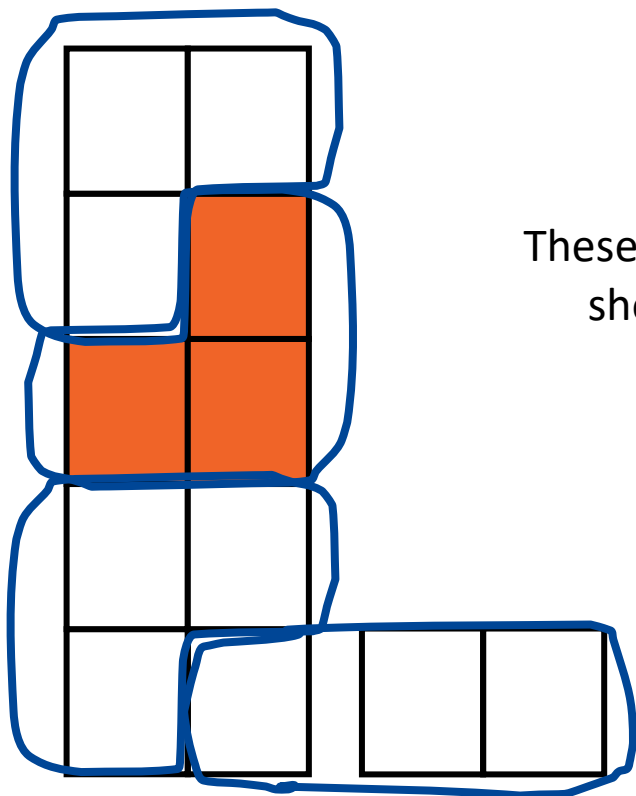
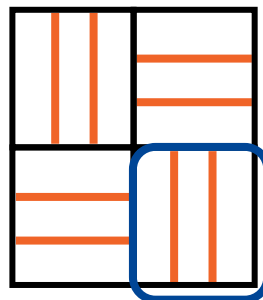
or



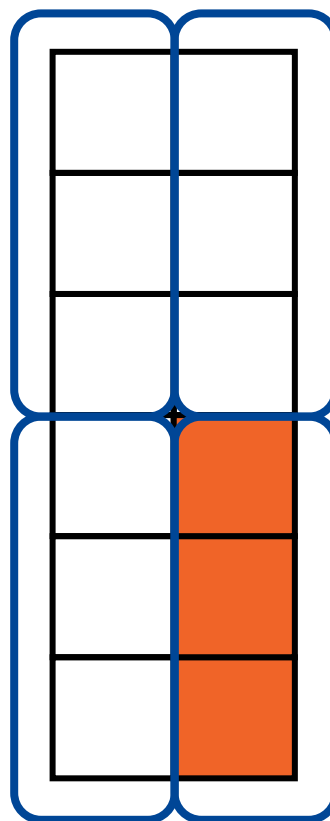
# Fractions

How many twelfths  
are in one fourth?

$$\frac{3}{12} = \frac{1}{4}$$

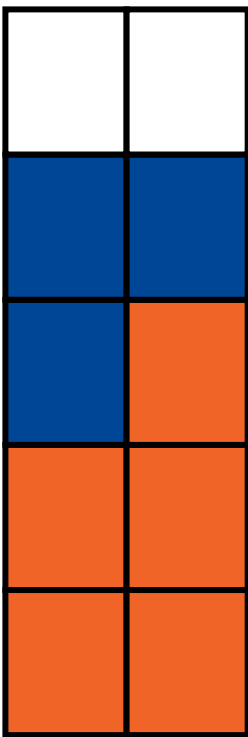


These three different 4-group models  
show how  $3/12$  is equal to  $1/4$ .

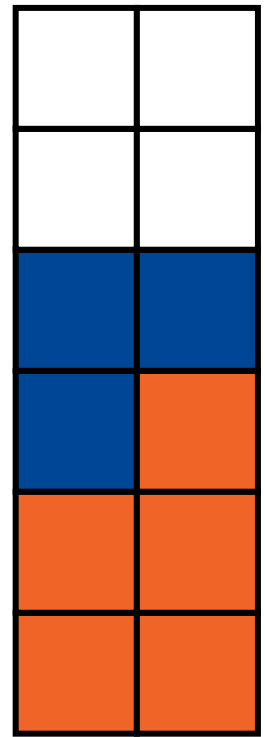
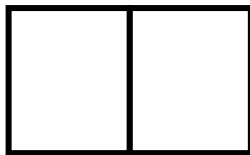


# Fractions

$$\frac{5}{12} + \frac{3}{12} = \frac{8}{12}$$



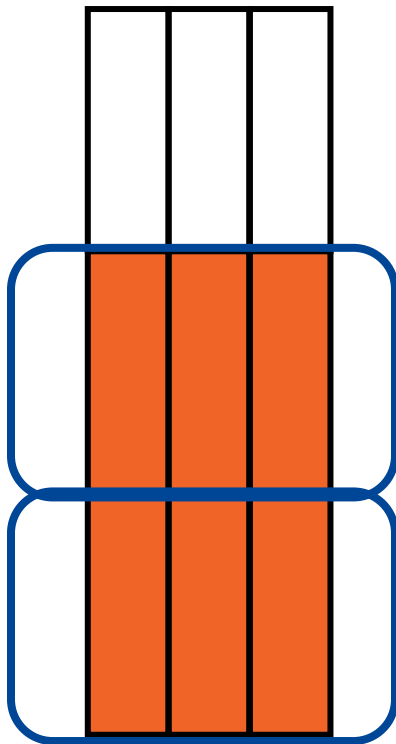
These two 4-group models show how  $5/12 + 3/12 = 8/12$ .



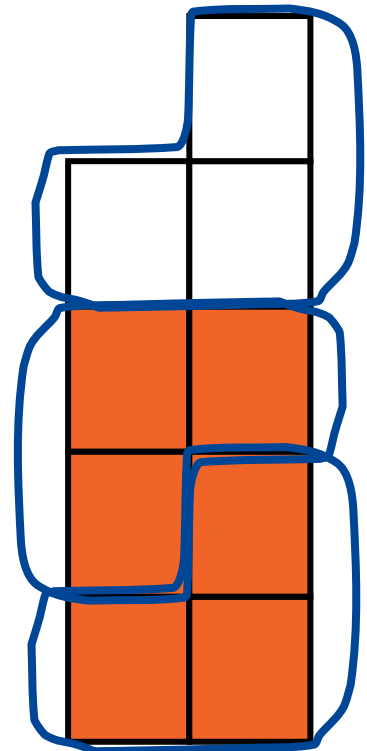
# Fractions

Use grouping to show that  
the fractions are equivalent.

$$\frac{6}{9} = \frac{2}{3}$$



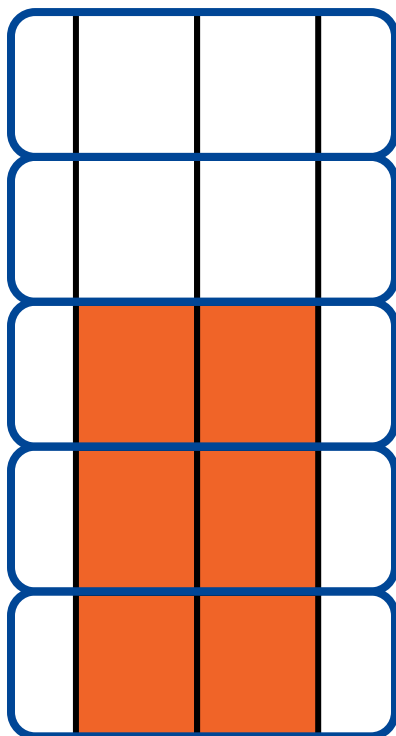
Both 4-group models  
show how  $6/9 = 2/3$ .



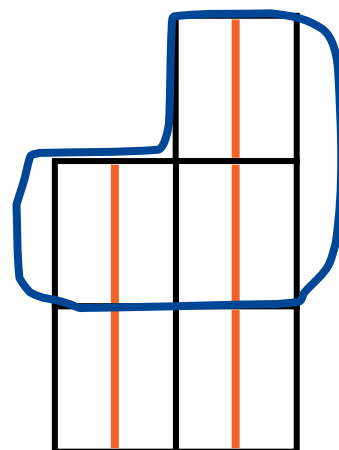
# Fractions

Write the equivalent fractions shown in the drawing.

$$\frac{6}{10} = \frac{3}{5}$$



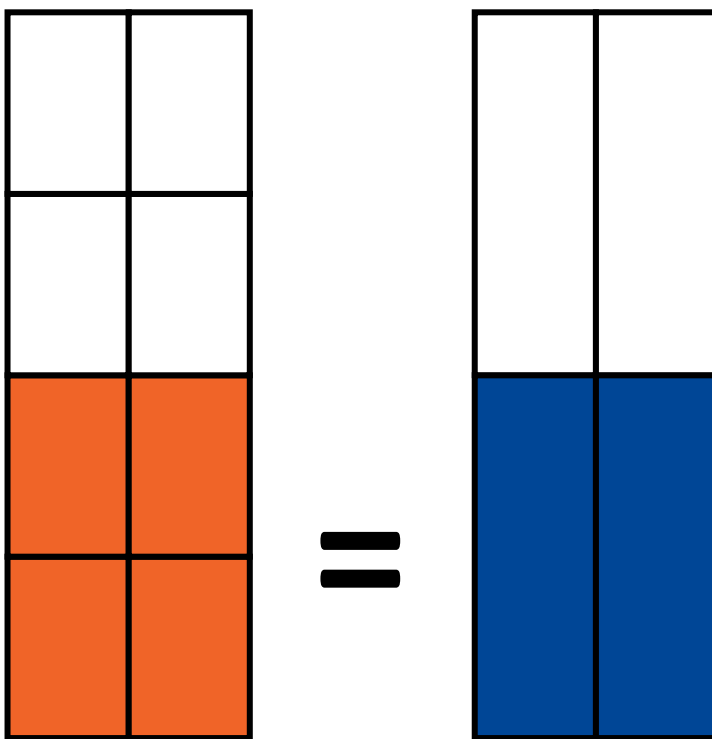
Both 4-group models show how  $6/10 = 3/5$ .



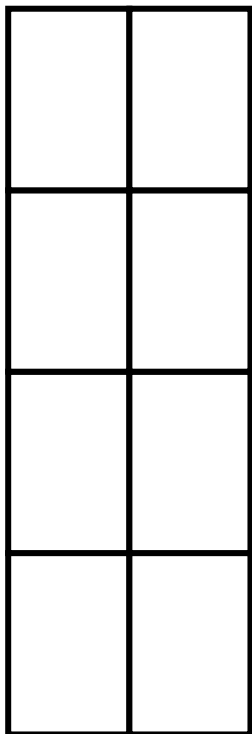
# Fractions

Write the equivalent fractions shown in the drawing.

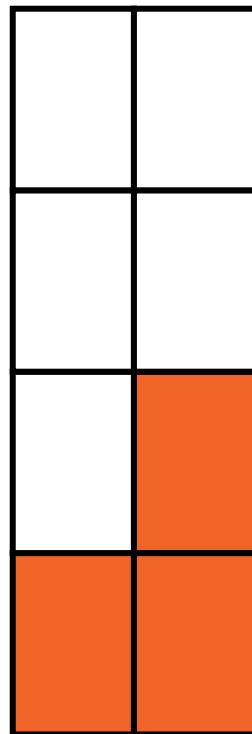
$$\frac{4}{8} = \frac{2}{4}$$



# Fractions



**Divide the whole  
into 8 equal parts.**



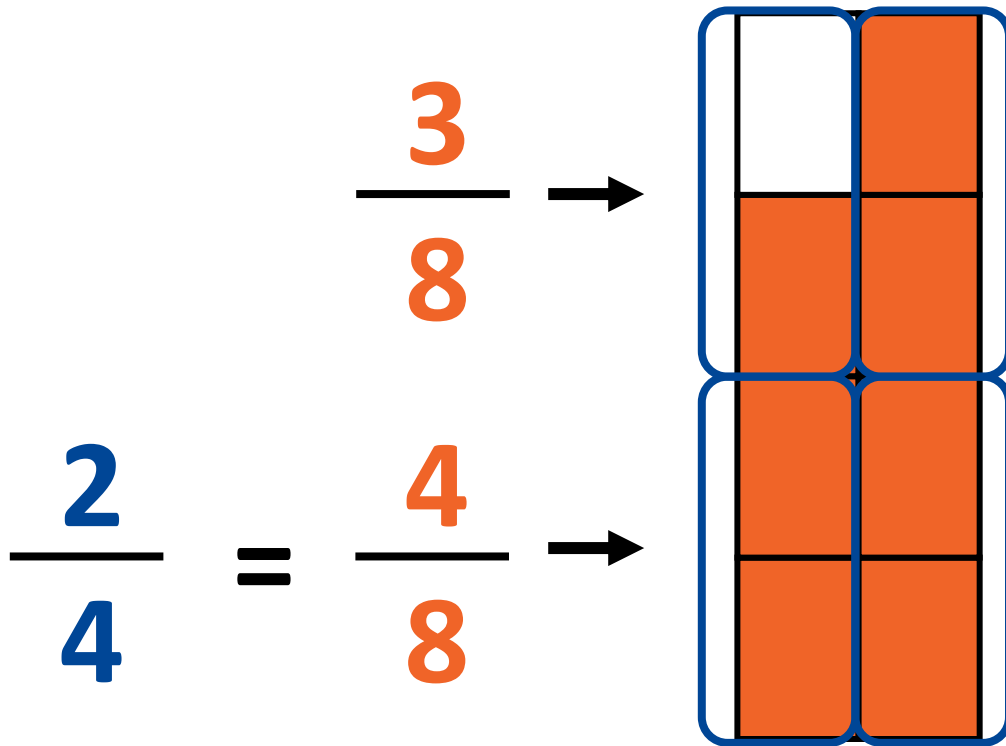
**Shade 3 parts.**

$$\frac{1}{8} + \frac{1}{8} + \frac{1}{8} = 3 \times \frac{1}{8} = \frac{3}{8}$$



# Fractions

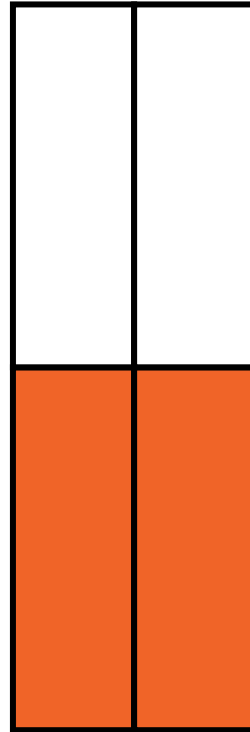
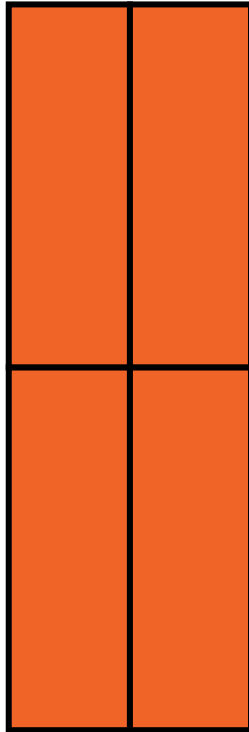
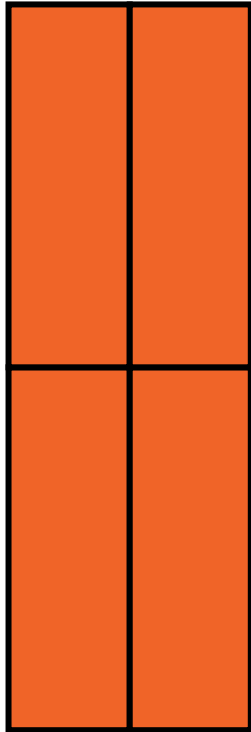
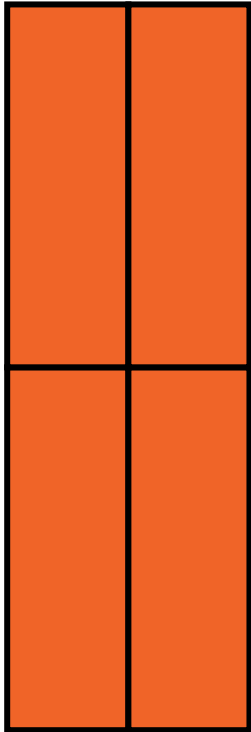
$$\frac{2}{4} + \frac{3}{8}$$



**Add**  $\frac{4}{8} + \frac{3}{8} = \frac{7}{8}$

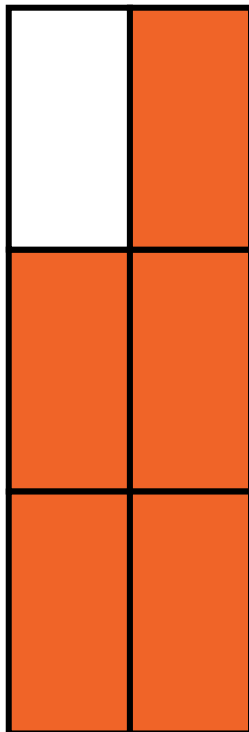
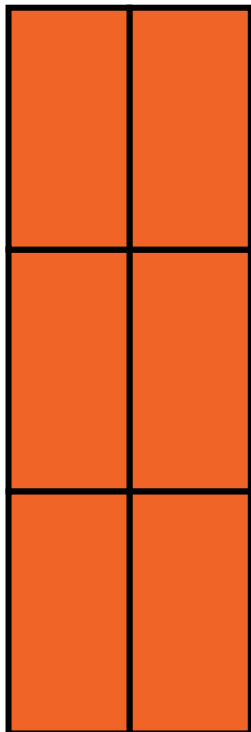
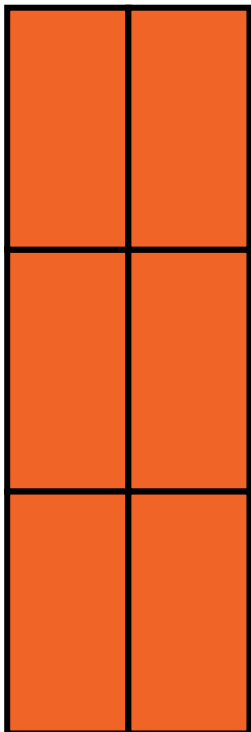
# Fractions

Write an improper fraction and a mixed number for the shaded part.



$$\frac{14}{4}$$

$$3\frac{2}{4}$$

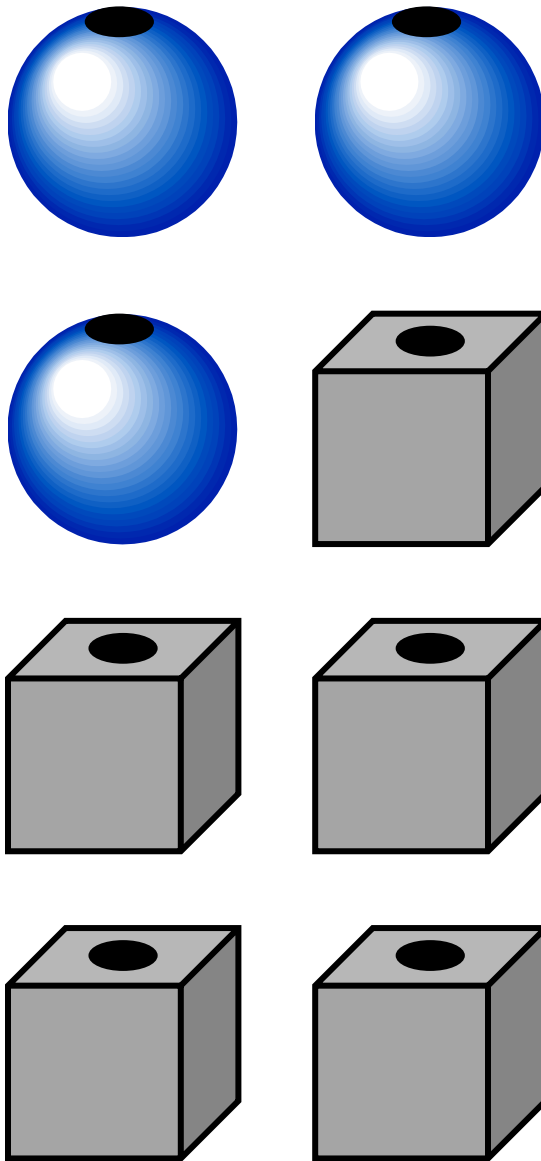


$$\frac{17}{6}$$

$$2\frac{5}{6}$$

# Fractions

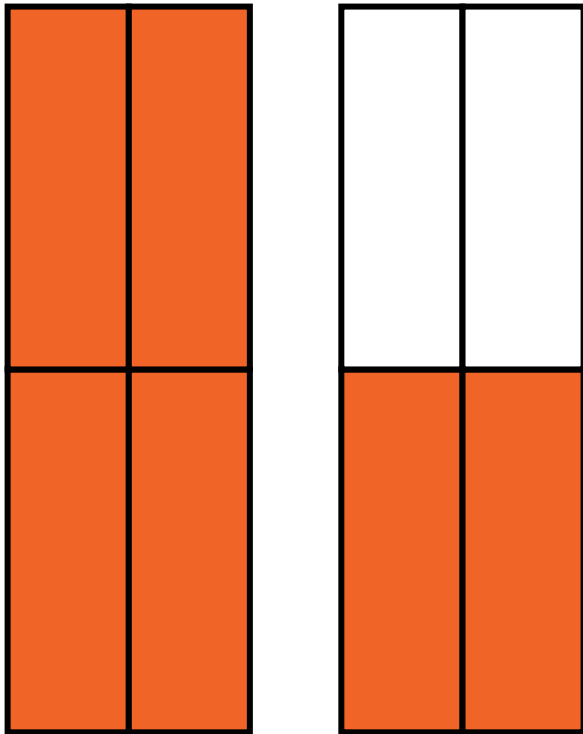
What fraction of the beads are spheres?



$$\frac{3}{8}$$

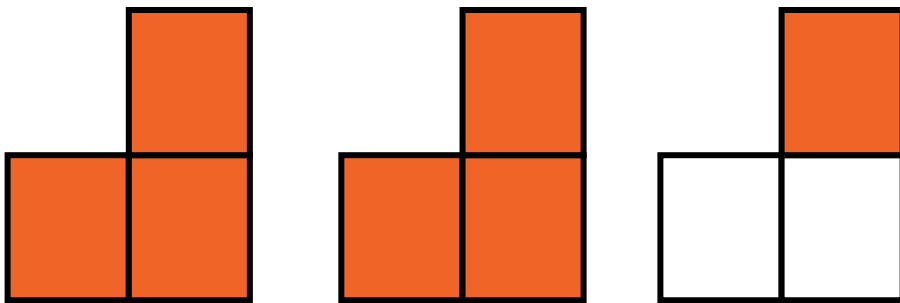
# Fractions

Write the mixed number and improper fraction that each drawing shows.



$$1 + \frac{2}{4} = 1\frac{2}{4}$$

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



$$1 + 1 + \frac{1}{3} = 2\frac{1}{3}$$

$$\frac{3}{3} + \frac{3}{3} + \frac{1}{3} = \frac{7}{3}$$