We have seven undivided objects and 3 pieces of a divide object. We simply wish to divide each of the whole units int pieces just like those of the divided unit, that is, we wish to cu each of the seven objects into quarters and put those with th 3 quarters and ascertain how many quarters we will have alto gether.

Since each unit makes 4 quarters the 7 units makes 7 time 4 quarters that is 28 quarters and those put with the 3 quarter make 31 quarters, that is $7\frac{3}{4} = \frac{84}{4}$.

Solve such questions in this manner first using actual object then imaginary objects until the pupils can without assista discover a rule for such work with the reason for such rule.

To change improper fractions to whole or mixed numbers:

Take for example, ³¹/₄.

Take eight sticks each one foot long. Cut each into quarters Take 31 of these quarters. Express what you have as $\frac{3}{4}$ for Ask pupils to stick enough quarter feet together to make a whol foot. They will find that this can be done seven times and ther will be three pieces called quarters left. This may be expressed thus, $\frac{3}{4}$ ft. = 7 $\frac{3}{4}$ ft.

Proceed in the same way with real and imaginary object until pupils discover rule with reason for same.

In a similar manner all rules for working with fractions may be made, from work done with actual and imaginary objects.

EXERCISE IX.

1. Express 4 as halves, as quarters, as sevenths.

2. Name ten fractions each equal to 3, equal to ½, equal to

3. Name four fractions each equal to $\frac{2}{5}$; to $\frac{4}{5}$; to $\frac{2}{5}$.

4. Reduce each of the following fractions to their equivalent fractions each in its lowest terms: $\frac{9}{12}$, $\frac{14}{18}$, $\frac{25}{125}$, $\frac{14}{27}$, $\frac{94}{96}$, $\frac{72}{54}$.

5. Express $7\frac{2}{3}$ in thirds; $9\frac{3}{4}$ in quarters,; $6\frac{5}{7}$ in sevenths $25\frac{1}{9}$ in ninths.

6. Express $5\frac{1}{2}$ in quarters; $7\frac{2}{3}$ in sixths; $8\frac{3}{4}$ in eighths; $4\frac{3}{4}$ in twelfths.

7. Reduce the following to equivalent fractions having the least common denominator: $\frac{5}{6}$ and $\frac{7}{3}$; $\frac{3}{4}$ and $\frac{4}{7}$; $\frac{1}{3}$, $\frac{3}{4}$ and $\frac{4}{5}$; $\frac{3}{4}$ and $\frac{4}{5}$; $\frac{1}{3}$, $\frac{3}{4}$ and $\frac{4}{5}$; $\frac{1}{3}$, $\frac{3}{4}$ and $\frac{4}{5}$; $\frac{1}{3}$, $\frac{1}{3}$