

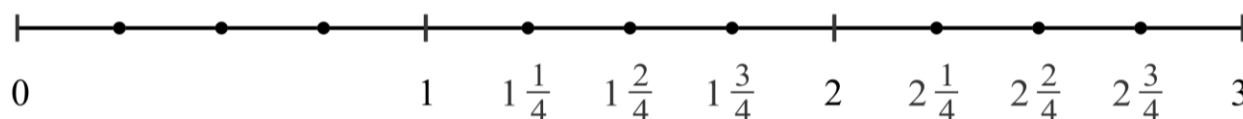
Name: \_\_\_\_\_

## More on Mixed Numbers

Where do mixed numbers go on the number line? We put them in the spaces between the whole numbers.

Let's say we want to put the number  $1\frac{1}{4}$  on the number line.  $1\frac{1}{4}$  is greater than 1 and less than 2. So, it goes in between 1 and 2.

We divide the unit distance between 1 and 2 into 4 equal parts (fourths). Each part is  $\frac{1}{4}$  unit in length. We put the number  $1\frac{1}{4}$  at the point that is  $\frac{1}{4}$  unit to the right of 1 (a fourth the distance between 1 and 2) *and*  $1\frac{1}{4}$  units from zero.



The number  $1\frac{2}{4}$  goes at the point that is  $\frac{2}{4}$  unit to the right of 1 (half the distance between 1 and 2) *and*  $1\frac{2}{4}$  units from zero.

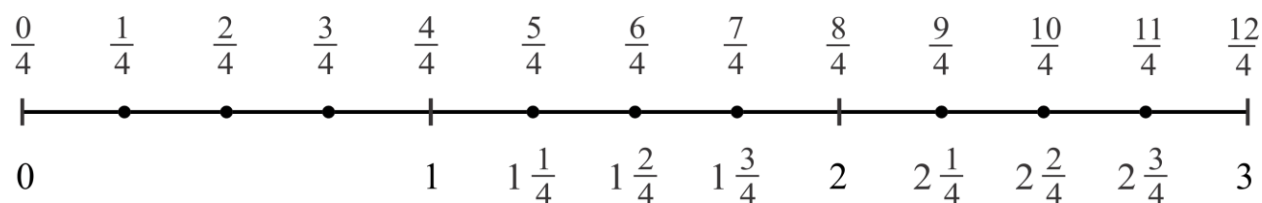
The number  $1\frac{3}{4}$  goes at the point that is  $\frac{3}{4}$  unit to the right of 1 ( $\frac{3}{4}$  the distance between 1 and 2) *and*  $1\frac{3}{4}$  units from zero.

The number 2 is 1 whole unit—or  $\frac{4}{4}$  of a unit to the right of 1.

What about  $2\frac{1}{4}$ ? It goes at the point that is  $\frac{1}{4}$  unit to the right of 2 (a fourth of the distance between 1 and 2) *and*  $2\frac{1}{4}$  units from zero.

How about improper fractions? Where do they fit in?

Well, we could mark-off the entire number line in  $\frac{1}{4}$  units (instead of whole units) and measure the distance from zero in  $\frac{1}{4}$  units. Then the number 1 would be labeled  $\frac{4}{4}$ . It is still 1 whole unit to the right of zero. Why? Because  $\frac{4}{4}$  unit = 1 unit. We just call it  $\frac{4}{4}$  instead of 1 because we are counting by fourths.



The number 2 would be labeled  $\frac{8}{4}$  because it is  $\frac{8}{4}$  units from zero. It is still 2 whole units from zero. Why? Because  $\frac{8}{4} = \frac{4}{4} + \frac{4}{4} = 1 + 1 = 2$ .

$1\frac{1}{4}$  becomes  $\frac{5}{4}$  because it is  $\frac{5}{4}$  units from zero.  $1 + \frac{1}{4} = \frac{4}{4} + \frac{1}{4} = \frac{5}{4}$ .

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**More on Mixed Numbers**

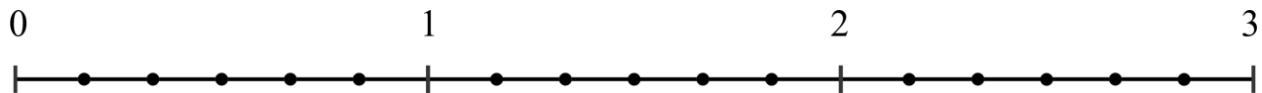
1. Mark and label these points on the number line below:

$2 \frac{5}{6}$

$12/6$

$1 \frac{1}{6}$

$3/6$



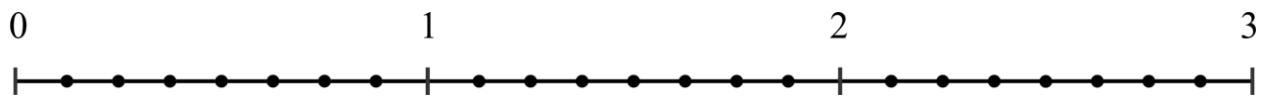
2. Mark and label these points on the number line below:

$1 \frac{5}{8}$

$10/8$

$3/8$

$2 \frac{7}{8}$



3. Mark and label these points on the number line below:

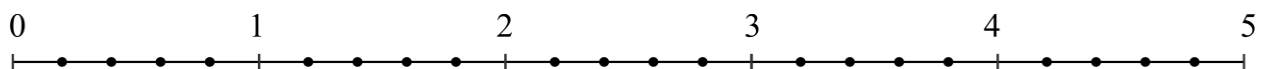
$5/5$

$1 \frac{3}{5}$

$12/5$

$15/5$

$4 \frac{2}{5}$



4. Use the number lines above to write these mixed numbers as improper fractions:

$2 \frac{1}{5} =$

$1 \frac{5}{6} =$

5. Use the number lines above to write these improper fractions as mixed numbers:

$15/8 =$

$15/5 =$

$15/6 =$