

D. Fractions and mixed numbers on the number line

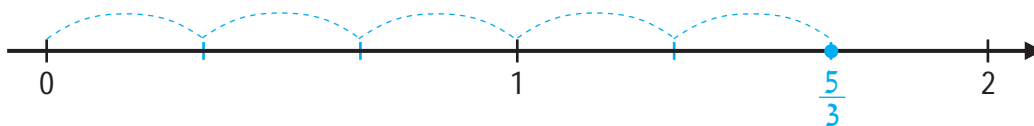
18. A fraction greater than 1 as a point on the number line

Let us learn how to find the point corresponding to a fraction greater than 1.

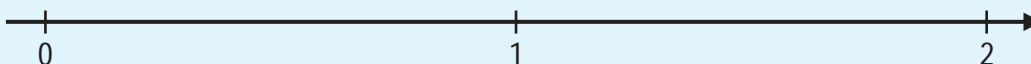
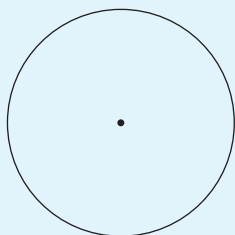
Example:

How do we find the point corresponding to the fraction $\frac{5}{3}$?

- We divide the unit segment between 0 and 1 into 3 equal parts, according to the denominator.
- Now we begin at 0 and start to count 5 steps, according to the numerator. But we do not have enough steps on the first unit segment, so we also divide the second unit segment (between 1 and 2) into 3 equal parts.
- We continue to count steps, until we are 5 steps away from 0.
- We mark the point we have reached. This is the point corresponding to $\frac{5}{3}$.



Draw the fraction $\frac{7}{5}$ using circles and on the number line.



Discussion

- How do we see the **denominator** of $\frac{7}{5}$ in the circles? How do we see the denominator on the number line?
- How do we see the **numerator** of $\frac{7}{5}$ in the circles? How do we see the numerator on the number line?

Summary: Fractions on the number line

The **fraction bar** indicates that we have to divide the unit segments into equal parts.

The **denominator** is the number of equal parts in each unit segment.

The **numerator** is the number of equal parts (steps) from 0 to the point of the fraction.

To the teacher:

In the discussion, emphasize the fact that we see the denominator in **each unit segment**. In the drawing of $\frac{7}{5}$, each unit segment is divided into 5 equal parts (like each of the circles).