Illustrative Mathematics

3.NF Find 1

Alignment 1: 3.NF.A.2

a. Draw a point on the number line for 1. Label the point. Be as exact as possible.

b. Draw a point on the number line for 1. Label the point. Be as exact as possible.

Commentary:
This task includes the seeds of several important ideas.

Part a presents the student with the opportunity to use a unit fraction to find 1 on the number line, a critical aspect for meeting standard 3.NF.2b. Furthermore, in asking students to locate 1 using the unit fraction $\frac{1}{4}$, the tasks strengthens the idea that a point (in this case $\frac{1}{4}$) on the line is indeed, a number. And because students locate 1 by measuring and adding additional intervals, it introduces the number line as one way to represent addition and, eventually subtraction.

Part b helps reinforce the notion that when a fraction has a numerator that is larger than the denominator, it has a value greater than 1 on the number line.

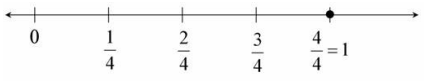
The following lists related tasks in order of sophistication:

- Locating Fractions Less than One on the Number Line
- Locating Fractions Greater than One on the Number Line
- Closest to $\frac{1}{2}$
- Find 1
- Find $\frac{2}{3}$
- Which is Closer to 1?

Solution: Find 1 using equal intervals

While it is not necessary to identify the intervals on the number line, we expect many students will do so. Somehow it should be clear that the position of "1" has be determined using the size of the unit fraction.

a.



b.