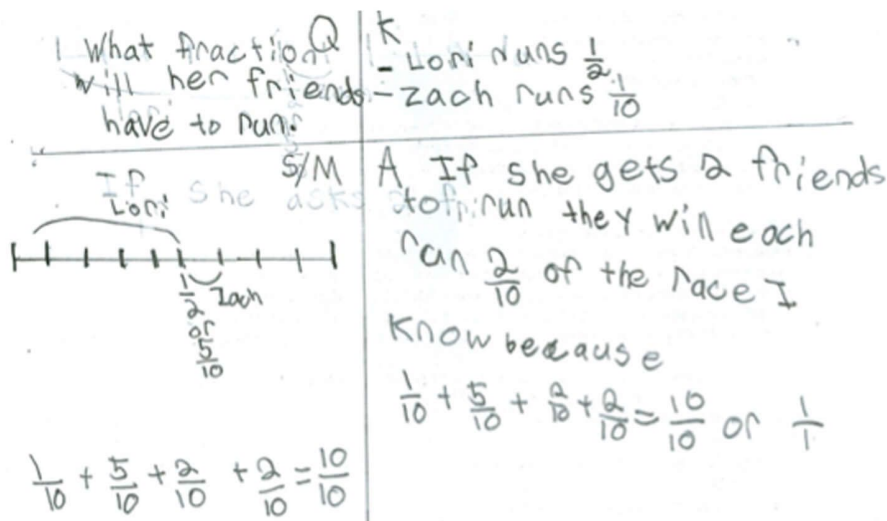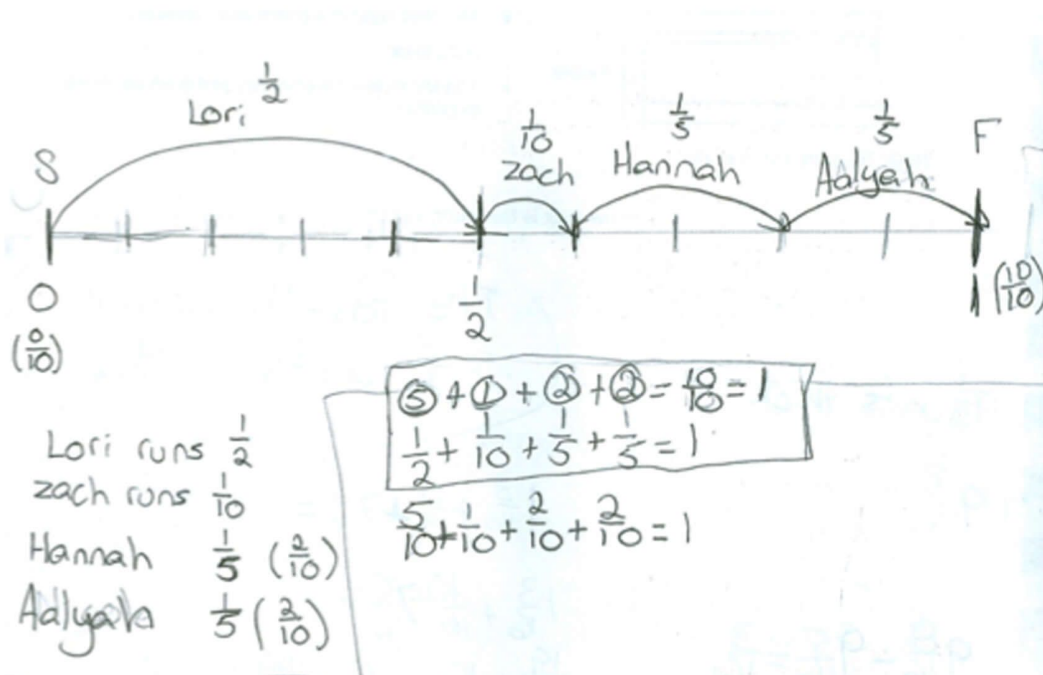# RELAY RACE
OPERATION D
Add and subtract fractions with friendly but unlike denominators (e.g., 2 and 10), using models and symbols

SAMPLE 3

This student constructed a number line and also wrote a number sentence. It is interesting to note that the student represented one half on the number line first but wrote one tenth first in the number sentence.
It would be interesting to hear this student explain the connection between the number line and the number sentence.

I What fraction will her friends have to run?

If Lori She acts S/M

- Lori runs $\frac{1}{2}$
- Zach runs $\frac{1}{10}$

A If she gets 2 friends to run they will each run $\frac{2}{10}$ of the race I know because

$$\frac{1}{10} + \frac{5}{10} + \frac{2}{10} + \frac{2}{10} = \frac{10}{10} \text{ or } \frac{1}{1}$$

$$\frac{1}{10} + \frac{5}{10} + \frac{2}{10} + \frac{2}{10} = \frac{10}{10}$$

SAMPLE 4

Lori runs $\frac{1}{2}$
zach runs $\frac{1}{10}$
Hannah $\frac{1}{5}$ $(\frac{2}{10})$
Aaliyah $\frac{1}{5}$ $(\frac{2}{10})$

$$⑤ + ① + ② + ② = \frac{10}{10} = 1$$

$$\frac{1}{2} + \frac{1}{10} + \frac{1}{5} + \frac{1}{5} = 1$$

$$\frac{5}{10} + \frac{1}{10} + \frac{2}{10} + \frac{2}{10} = 1$$

This student also creates an accurate number line and determines correct distances for two more friends to run. Notice that this student seems to be comfortable with equivalent fractions (one fifth equals two tenths). This student writes a number sentence using tenths as the denominator without including the denominator in the numbers on the left. It is important to ensure that the student understands that this number sentence, as written, is not true and that it is essential to include the numerator and denominator to maintain accurate numeric values.