

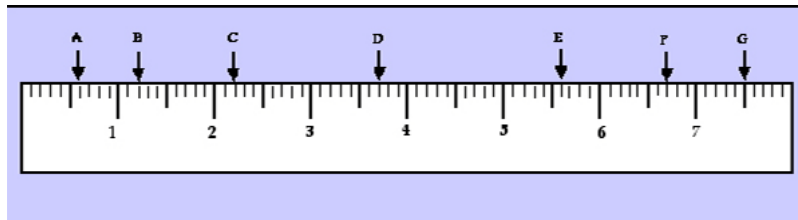
## Topic 21 Using Decimal Fractions

Continuing the approach used in Topic 16, students are encouraged to relate decimals to common fractions and to add, subtract, and order decimals by using number sense.



The plant is  $2 \frac{1}{4}$  meters tall. Write the height of the player as a decimal number.  $\frac{1}{4} = \frac{25}{100} = 0.25$  The tree is 2.25 meters tall.

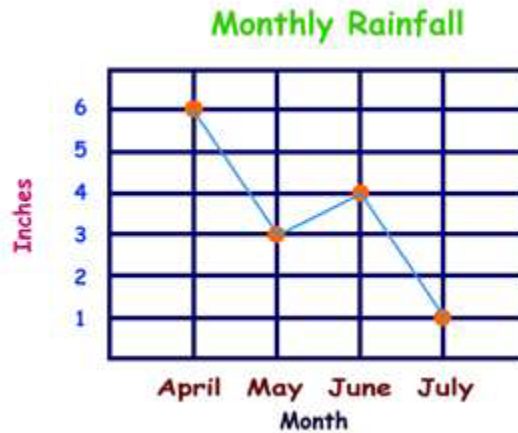
Topic 21 begins using meter sticks because they are divided into tenths and hundredths; they make good physical models of decimal numbers. In this topic, students compare metric lengths written as fractions and decimals.



Number lines and “thousandths” grids provide additional ways for students to reinforce their understanding of the relationships among decimal numbers. Students plot decimal numbers on number lines and use the number lines to help them compare numbers and identify equivalent decimals. In a link to social studies, students color grids to model the fraction of the earth covered by each continent.



Next, students use their knowledge of decimal numbers to help them interpret data from a line graph. They subtract to find the difference between data at different points on the graph.



This topic introduces multiplication of decimal numbers by presenting problems that involve decimals.

For example: students solve  $2 \times 3$  and then find ways to solve  $2 \times 0.3$ ,  $2 \times 0.03$ , and  $2 \times 0.003$ .