

Tom wonders why 0.125 is called “125 thousandths” since 5 is in the thousandth place, not 125. Tom’s friend Jerry uses equivalent fractions to show that 0.125’s name is the total value of all 3 of its digit’s values.

$$\begin{array}{ccc} & 0.125 & \\ \swarrow & | & \searrow \\ \text{“1 tenth”} & \text{“2 hundredths”} & \text{“5 thousandths”} \\ \frac{1}{10} = \frac{100}{1,000} & \frac{2}{100} = \frac{20}{1,000} & \frac{5}{1,000} = \frac{5}{1,000} \\ \\ \frac{100}{1,000} + \frac{20}{1,000} + \frac{5}{1,000} = \frac{125}{1,000} \\ \text{“One hundred twenty-five thousandths”} \end{array}$$

Use Jerry’s reasoning to explain why 0.875 is called “875 thousandths.”

$$\begin{array}{ccc} & 0.875 & \\ \swarrow & | & \searrow \\ \text{“8 tenths”} & \text{“7 hundredths”} & \text{“5 thousandths”} \end{array}$$