

Name _____

Date _____

Convert a rational number to a decimal - Step-by-Step Lesson

1. Convert a rational number to a decimal

$$3 \overline{) 21.12}$$

Explanation:

Look at the first two digits. The first two digits are more than 21. Start with the first 2 digits. Divide the ones.

$$\begin{array}{r} 7 \\ 3 \overline{) 22.12} \\ \underline{21} \\ 1 \end{array} \qquad \begin{array}{l} 3 \times 7 = 21 \\ 22 - 21 = 1 \end{array}$$

Bring down 1. Divide the 11

$$\begin{array}{r} 7.3 \\ 3 \overline{) 22.12} \\ \underline{21} \\ 11 \\ \underline{9} \\ 2 \end{array} \qquad \begin{array}{l} 3 \times 3 = 9 \\ 11 - 9 = 2 \end{array}$$

Bring down 2. Divide the 22

$$\begin{array}{r} 7.37 \\ 3 \overline{) 22.12} \\ \underline{21} \\ 11 \\ \underline{9} \\ 22 \\ \underline{21} \\ 1 \end{array} \qquad \begin{array}{l} 3 \times 7 = 21 \\ 22 - 21 = 1 \end{array}$$



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Now we divide

$$\begin{array}{r} 7.373 \\ 3 \overline{) 22.12} \end{array}$$

$$3 \times 3 = 9$$

$$\begin{array}{r} 21 \\ \underline{11} \\ 9 \\ \underline{22} \\ 21 \\ \underline{10} \\ 9 \\ \underline{1} \end{array}$$

$$10 - 9 = 1$$

So, answer is 7.373

