

Fractions to Decimals-

7th Grade Math

Name: Key

Using long division to answer the following problems. Also indicate if the decimal is repeating, terminating (it has an end), or is irrational (does not end)

1. $\frac{12}{20} = \frac{6}{10} = \frac{3}{5} = .6$ Ends

$$\begin{array}{r} 6 \\ 5 \overline{) 300} \\ \underline{30} \\ 0 \end{array}$$

2. $\frac{8}{9} =$

$$\begin{array}{r} 888 \\ 9 \overline{) 80000} \\ \underline{72} \\ 80 \\ \underline{72} \\ 80 \\ \underline{72} \\ 80 \\ \underline{72} \\ 80 \\ \underline{72} \\ 8 \end{array}$$

$\frac{8}{9} = .\overline{8}$
repeating

3. $\frac{5}{7} =$

$$\begin{array}{r} 714285 \\ 7 \overline{) 5000000} \\ \underline{49} \\ 10 \\ \underline{7} \\ 30 \\ \underline{28} \\ 20 \\ \underline{14} \\ 60 \\ \underline{56} \\ 40 \\ \underline{35} \\ 5 \end{array}$$

$\frac{5}{7} = .\overline{714285}$
repeating

4. $\frac{1}{9} =$

$$\begin{array}{r} 1111 \\ 9 \overline{) 10000} \\ \underline{9} \\ 10 \\ \underline{9} \\ 10 \\ \underline{9} \\ 10 \\ \underline{9} \\ 10 \\ \underline{9} \\ 10 \end{array}$$

$\frac{1}{9} = .\overline{1}$
repeating

5. $\frac{7}{8} = .875$ ends

$$\begin{array}{r} 875 \\ 8 \overline{) 700000} \\ \underline{64} \\ 60 \\ \underline{56} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

6. $\frac{4}{5} =$

$$\begin{array}{r} 8 \\ 5 \overline{) 40000} \\ \underline{40} \\ 0 \end{array}$$

$\frac{4}{5} = .8$ ENDS

7. $\frac{2}{9} =$

$$\begin{array}{r} 2222 \\ 9 \overline{) 20000} \\ \underline{18} \\ 20 \\ \underline{18} \\ 20 \\ \underline{18} \\ 20 \\ \underline{18} \\ 20 \end{array}$$

$\frac{2}{9} = .\overline{2}$
repeating

$$\begin{array}{r} 857142 \\ 7 \overline{) 6000000} \\ \underline{56} \\ 40 \\ \underline{35} \\ 50 \\ \underline{49} \\ 10 \\ \underline{7} \\ 30 \\ \underline{28} \\ 20 \\ \underline{14} \\ 60 \end{array}$$

8. $\frac{2}{3} =$

$$\begin{array}{r} 6666 \\ 3 \overline{) 20000} \\ \underline{18} \\ 20 \\ \underline{18} \\ 20 \\ \underline{18} \\ 20 \\ \underline{18} \\ 20 \end{array}$$

$\frac{2}{3} = .\overline{6}$
repeating

10. $\frac{1}{8} =$

$$\begin{array}{r} 125 \\ 8 \overline{) 1000} \\ \underline{8} \\ 20 \\ \underline{16} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

ENDS

9. $\frac{6}{7} =$

$$\frac{6}{7} = .\overline{857142}$$

repeating