

## Converting Any Fraction to a Decimal (by Dividing)

CAF 1

**Instructions:** Use 'decimal division' to convert these fractions into decimal values. These all have non-repeating digits. Be sure to show your work!

1  $\frac{2}{5} = \underline{0.4}$

2  $\frac{1}{4} = \underline{\hspace{2cm}}$

$$\begin{array}{r} 0.4 \\ 5 \overline{) 2.0} \\ \underline{- 2.0} \\ 0 \end{array}$$

3  $\frac{3}{4} = \underline{\hspace{2cm}}$

4  $\frac{3}{8} = \underline{\hspace{2cm}}$

5  $\frac{1}{8} = \underline{\hspace{2cm}}$

6  $\frac{5}{8} = \underline{\hspace{2cm}}$

## Repeating Decimals from Fractions

CAF 2

**Instructions:** Use 'decimal division' to convert these fractions into decimal values. These all have repeating digits. Be sure to show your work!

**Example**

$$\frac{1}{6} = \underline{0.1\overline{6}}$$

$$\begin{array}{r} 0.166 \\ 6 \overline{) 1.000} \\ \underline{- 6} \phantom{00} \\ 40 \\ \underline{- 36} \\ 40 \\ \underline{- 36} \\ 4 \end{array}$$

same pattern in division means a repeating decimal

1  $\frac{1}{9} = \underline{\hspace{2cm}}$

2  $\frac{5}{9} = \underline{\hspace{2cm}}$

3  $\frac{5}{12} = \underline{\hspace{2cm}}$

4  $\frac{3}{11} = \underline{\hspace{2cm}}$

## Long Repeating Decimals from Fractions

CAF 3

**Instructions:** Use 'decimal division' to convert these fractions into decimal values. These all have long decimal parts, so **round off** to **three** decimal places. Be sure to show your work!

Example

$$\frac{1}{7} = \underline{0.143}$$

$$\begin{array}{r} 0.1428 \\ 7 \overline{) 1.0000} \\ \underline{- 7} \phantom{00} \\ 30 \phantom{0} \\ \underline{- 28} \phantom{0} \\ 20 \phantom{0} \\ \underline{- 14} \phantom{0} \\ 60 \\ \underline{56} \phantom{0} \end{array}$$

let's just stop here and round off our answer

1  $\frac{3}{7} =$  \_\_\_\_\_

2  $\frac{6}{7} =$  \_\_\_\_\_

3  $\frac{5}{13} =$  \_\_\_\_\_

4  $\frac{2}{17} =$  \_\_\_\_\_

## Converting with a Calculator

CAF 4

**Instructions:** The following fractions have been converted to decimals with a calculator. Round the answers off to **three** decimal places or use the repeat symbol to shorten the answer if you see a repeating pattern.

1  $\frac{2}{7} = 0.2857142... = \underline{0.286}$

2  $\frac{7}{9} = 0.7777777... = \underline{0.\overline{7}}$

3  $\frac{15}{21} = 0.7142857... = \underline{\hspace{2cm}}$

4  $\frac{19}{33} = 0.5757575... = \underline{\hspace{2cm}}$

5  $\frac{9}{14} = 0.6428571... = \underline{\hspace{2cm}}$

6  $\frac{9}{23} = 0.3913043... = \underline{\hspace{2cm}}$

7  $\frac{8}{11} = 0.7272727... = \underline{\hspace{2cm}}$

8  $\frac{6}{19} = 0.3157894... = \underline{\hspace{2cm}}$

9  $\frac{7}{22} = 0.3181818... = \underline{\hspace{2cm}}$

10  $\frac{11}{12} = 0.9166666... = \underline{\hspace{2cm}}$

**Instructions:** Use a calculator to convert these fractions to decimals. Round off to **three** decimal places or use the repeat symbol if you see a repeating pattern.

1  $\frac{4}{7} = \underline{0.571}$

2  $\frac{12}{17} = \underline{\hspace{2cm}}$

3  $\frac{12}{13} = \underline{\hspace{2cm}}$

4  $\frac{15}{22} = \underline{\hspace{2cm}}$

5  $\frac{10}{11} = \underline{\hspace{2cm}}$

6  $\frac{3}{13} = \underline{\hspace{2cm}}$

7  $\frac{16}{31} = \underline{\hspace{2cm}}$

8  $\frac{4}{3} = \underline{\hspace{2cm}}$