

## Converting Fraction to Decimals – Solutions

1. 
$$\begin{array}{r} .375 \\ 8 \overline{) 3.000} \\ \underline{-24} \downarrow \\ 60 \\ \underline{-56} \\ 40 \\ \underline{-40} \\ 0 \end{array} \quad \frac{3}{8} = \boxed{0.375}$$

2. 
$$\begin{array}{r} .7272 \\ 11 \overline{) 8.0000} \\ \underline{-77} \downarrow \\ 30 \\ \underline{-22} \\ 80 \\ \underline{-77} \\ 30 \\ \underline{-22} \\ 8 \\ \text{(repeating)} \end{array} \quad \frac{8}{11} = \boxed{0.72\overline{72}}$$

3. 
$$\begin{array}{r} .91666 \\ 12 \overline{) 11.00000} \\ \underline{-108} \downarrow \\ 20 \\ \underline{-12} \\ 80 \\ \underline{-72} \\ 80 \\ \underline{-72} \\ 80 \\ \underline{-72} \\ 8 \end{array} \quad \frac{11}{12} = \boxed{0.91\overline{6}}$$

4.

$$\begin{array}{r} 133 \\ 15 \overline{) 2000} \\ \underline{-15} \phantom{0} \\ 50 \\ \underline{-45} \\ 50 \\ \underline{-45} \\ 5 \end{array}$$

$$\frac{2}{15} = \boxed{0.\overline{13}}$$

5(repeating)

5.  $3\frac{1}{9}$

$$\begin{array}{r} .111 \\ 9 \overline{) 1.000} \\ \underline{-9} \phantom{00} \\ 10 \\ \underline{-9} \\ 10 \\ \underline{-9} \\ 1 \end{array}$$

$$3\frac{1}{9} = 3 + 0.\overline{1} = \boxed{3.\overline{1}}$$

1 (repeating)

$$\begin{array}{r} .59 \\ 100 \overline{) 59.00} \\ \underline{-500} \\ 900 \\ \underline{-900} \\ 0 \end{array}$$

$$\frac{59}{100} = \boxed{0.59}$$

7.  $2\frac{6}{7}$

0.8571 rounds to 0.857



$$\begin{array}{r} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ 7 \overline{) 6.0000} \\ \underline{-56} \phantom{00} \\ 40 \phantom{00} \\ \underline{-35} \phantom{00} \\ 50 \phantom{00} \\ \underline{-49} \phantom{00} \\ 10 \phantom{00} \\ \underline{-7} \phantom{00} \\ 3 \phantom{00} \end{array}$$

$2\frac{6}{7} = 2 + 0.857 = \boxed{2.857}$

8.  $5\frac{4}{9}$

$$\begin{array}{r} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ 9 \overline{) 4.000} \\ \underline{-36} \phantom{00} \\ 40 \phantom{00} \\ \underline{-36} \phantom{00} \\ 40 \phantom{00} \\ \underline{-36} \phantom{00} \\ 4 \phantom{00} \end{array}$$

$5\frac{4}{9} = 5 + 0.\bar{4} = \boxed{5.\bar{4}}$

(repeating)

9.  $1\frac{13}{20}$

$$\begin{array}{r} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ 20 \overline{) 13.00} \\ \underline{-120} \phantom{00} \\ 100 \phantom{00} \\ \underline{-100} \phantom{00} \\ 0 \phantom{00} \end{array}$$

$1\frac{13}{20} = 1 + 0.65 = \boxed{1.65}$

10.

$$\begin{array}{r} .65217 \\ 23 \overline{) 15.00000} \\ \underline{-138} \phantom{000} \\ 120 \phantom{00} \\ \underline{-115} \phantom{0} \\ 50 \\ \underline{-46} \\ 40 \\ \underline{-23} \\ 170 \\ \underline{-161} \\ 9 \end{array}$$

0.65217 rounds to 0.6522

$$\frac{15}{23} = \boxed{0.6522}$$