

Long Division Practice

1. When division is too difficult to do mentally, we use a strategy called "long division."

-To the right is an example that shows the long division for the problem $7 \div 5$.

$$\begin{array}{r} 1.4 \\ 5 \overline{) 7.0} \\ \underline{5} \\ 20 \\ \underline{20} \\ 0 \end{array}$$

a) Based on the example, what is the solution to $7 \div 5$?

Write as many solutions as you can.

$$1 \text{ r } 2 \quad 7/5$$

$$1 \frac{2}{5}$$

$$1.4$$

2. Let's practice a few more division problems using long division.

Challenge yourself to write your solutions in multiple ways (such as a fraction and a decimal).

a) $12 \div 5$

b) $9 \div 5$

c) $5 \div 2$

3. What about bigger numbers? Try these!

a) $275 \div 3$

b) $109 \div 3$

c) $312 \div 3$

$$\begin{array}{r} 104 \\ 3 \overline{) 312} \\ \underline{-3} \\ 012 \\ \underline{-12} \\ 0 \end{array} = 104$$

$$312 \div 3 = 104$$

front

c) 2

$$\begin{array}{r} 05 \\ -3 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 17 \\ -18 \\ \hline 1 \end{array}$$

$$275 \div 3 = 91 \frac{2}{3}$$

$$109 \div 3 = 36 \frac{1}{3}$$

① on front

$$\textcircled{2} \begin{array}{r} 02.4 \\ 5 \overline{) 12.00} \\ \underline{-10} \downarrow \\ 20 \\ \underline{-20} \\ 0 \end{array} \quad 12 \div 5 = 2.4 \text{ or } 2\frac{2}{5}$$

$$\text{b) } \begin{array}{r} 1.80 \\ 5 \overline{) 9.00} \\ \underline{-5} \downarrow \\ 40 \\ \underline{-40} \downarrow \\ 00 \end{array} \quad 9 \div 5 = 1.8 \text{ or } 1\frac{4}{5}$$

$$\text{c) } \begin{array}{r} 2.5 \\ 2 \overline{) 5.000} \\ \underline{-4} \downarrow \\ 10 \\ \underline{-10} \\ 0 \end{array} \quad 5 \div 2 = 2.5 \text{ or } 2\frac{1}{2}$$

$$\textcircled{3} \begin{array}{r} 091 \\ 3 \overline{) 275} \\ \underline{-27} \downarrow \\ 05 \\ \underline{-3} \\ 2 \end{array} = 91\frac{2}{3} \quad 91.\bar{6}$$

$$\text{b) } \begin{array}{r} 036 \\ 3 \overline{) 109} \\ \underline{-9} \downarrow \\ 19 \\ \underline{-18} \\ 1 \end{array} = 36\frac{1}{3} \quad 36.\bar{3}$$

c) front

$$275 \div 3 = 91\frac{2}{3}$$

$$109 \div 3 = 36\frac{1}{3}$$