Division Exercises

A. Division without remainder

Exercise A - Simplify the following numbers using the long division:

1) \[ \frac{764}{2} \] 2) \[ \frac{414}{3} \] 3) \[ \frac{676}{4} \] 4) \[ \frac{5025}{5} \] 5) \[ \frac{6146}{7} \] 6) \[ \frac{304}{8} \] 7) \[ \frac{4212}{6} \] 8) \[ \frac{1026}{9} \]

Answers:
1) 382; 2) 138; 3) 169; 4) 1005; 5) 878; 6) 38; 7) 702; 8) 114

B. Division with remainder and decimals as answers

Exercise B - Simplify the following numbers using the long division:

1) \[ \frac{157}{2} \] 2) \[ \frac{731}{3} \] 3) \[ \frac{205}{4} \] 4) \[ \frac{9134}{5} \] 5) \[ \frac{1156}{6} \] 6) \[ \frac{215}{7} \] 7) \[ \frac{1459}{8} \] 8) \[ \frac{164}{9} \]

Answers:
1) 78.5; 2) 243.67; 3) 51.25; 4) 182.68; 5) 192.67; 6) 30.714; 7) 182.375; 8) 18.22

Dividing with Decimals

C. The number you are dividing up has a decimal in it

This is not a problem – just divide as normal putting a decimal in the answer in the same place that it is in the number you are dividing up.

Example

\[ 24.93 \div 3 \text{ or } \frac{24.93}{3} \] Note: these both mean 24.93 is divided by 3

\[ \begin{array}{c|c|c}
831 & \text{Note: these both mean 24.93 is divided by 3} \\
3 & 2493 \\
\hline
& 8.31 \\
& 24.93
\end{array} \]

Exercise C - Simplify the following numbers using the long division:

1) \[ \frac{3.36}{2} \] 2) \[ \frac{1.76}{3} \] 3) \[ \frac{20.31}{4} \] 4) \[ \frac{1.62}{5} \] 5) \[ \frac{0.24}{6} \] 6) \[ \frac{0.035}{7} \] 7) \[ \frac{48.64}{8} \] 8) \[ \frac{7.2009}{9} \]

Answers:
1) 1.68; 2) 0.5867; 3) 5.0775; 4) 0.324; 5) 0.04; 6) 0.005; 7) 6.08; 8) 0.8001
D. The number you are *dividing by* has a decimal in it

This is more of a problem.

Step 1: Get rid of the decimal in the number you are *dividing by*, by moving it to the right out of the number. Count how many places you move it.

Step 2: Move the decimal point in the number you are *dividing up* the same number of places.

Step 3: Divide as normal – this is your answer

(Theory: \( \frac{1}{0.2} = \frac{10}{2} = \frac{100}{20} \) All equal 5)

**Example:** \( 24.93 \div 0.3 \) or \( \frac{24.93}{0.3} \) becomes \( \frac{249.3}{3} \) and the answer is 83.1

Note: If there is no decimal point, it is at the end of the number

56 can be written 56.

If there are not enough places to jump over add 0s

**Example:** \( \frac{6}{0.3} = \frac{60}{3} = 20 \)

**Exercise D**

1) \( \frac{2.4}{0.4} \) 2) \( \frac{0.24}{0.4} \) 3) \( \frac{2.38}{0.7} \) 4) \( \frac{2.38}{0.07} \) 5) \( \frac{2}{0.5} \) 6) \( \frac{2}{0.05} \)

**Answers**

1) 6 2) 0.6 3) 3.4 4) 34 5) 4 6) 40
An example of how this skill is used in drug calculations.

1. A client is ordered Lanoxin 0.25 mg orally. Tablet strength is 0.125 mg. How many tablets does the patient need?

\[
\frac{0.25}{0.125} = \frac{250}{125} = 2 \text{ tablets}
\]

2. How many mL of Aminophylline is required for 0.48 mg. Ward stock is 0.8 mg/mL.

3.

\[
\frac{0.48}{0.8} \times \frac{1}{1} = \frac{0.48}{0.8} = \frac{4.8}{8} = \frac{0.6}{8} \quad 8 \div 4.8
\]

\[
= 0.6 \quad \frac{8}{4.8}
\]

\[
= 0.6 \text{ mL}
\]