

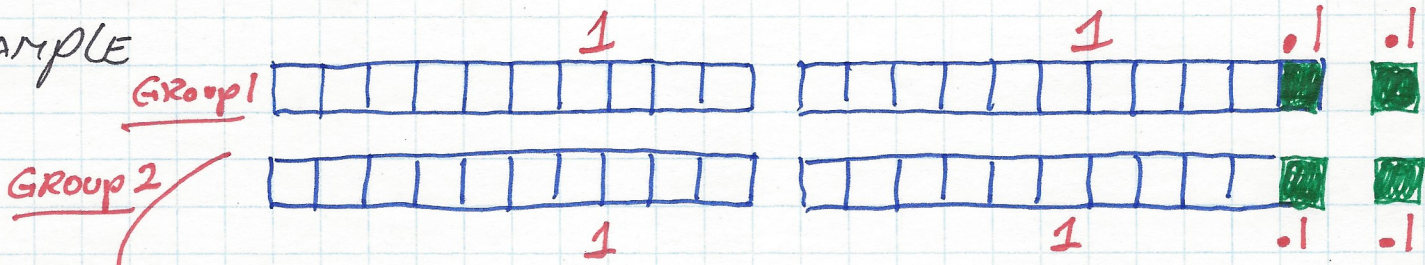
Unit 3.5

DIVIDING DECIMALS

5788
 $9 \overline{) 52100}$
 Quotient
 Divisor
 Dividend

Remember: Division means creating equal groups

EXAMPLE



• This number is $1+1+1+1+0.1+0.1+0.1+0.1$ which is 4.4

• I made 2 "equal" groups of 2.2 each

SO \rightarrow $4.4 \div 2 = 2.2$

Total number groups to be formed Each group's amount

TO DIVIDE DECIMAL NUMBERS

Follow this procedure:

- ① IF THE DIVISOR IS NOT A WHOLE NUMBER MOVE DECIMAL POINT TO THE RIGHT TO MAKE IT A WHOLE NUMBER.
- ② DIVIDE AS USUAL.
- ③ PUT DECIMAL POINT DIRECTLY ABOVE DECIMAL POINT IN THE DIVIDEND.
- ④ ALWAYS CHECK YOUR ANSWER

Examples

① $16146.2 \div 38$

placed Above original point's place

(MAKES IT 161462)

$$\begin{array}{r} 424.9 \\ 38 \overline{) 16146.2} \\ \underline{152} \\ 94 \\ \underline{76} \\ 186 \\ \underline{152} \\ 342 \\ \underline{342} \\ 0 \end{array}$$

② $52.1 \div 0.9$

$0.9 \overline{) 52.1}$

original place

$$\begin{array}{r} 57.88 \\ 9 \overline{) 52.100} \\ \underline{45} \\ 71 \\ \underline{63} \\ 80 \\ \underline{72} \\ 80 \\ \underline{72} \\ 8 \end{array}$$

- THE DIVISOR IS 0.9.
- WE MOVE THE DECIMAL TO THE RIGHT
- BECAUSE WE MOVED THE DIVISOR'S DECIMAL ONE PLACE, WE MOVE THE DIVIDEND'S DECIMAL 1 PLACE.

WE ADD 0'S TO BE ABLE TO CONTINUE DIVIDING

③

$$0.8 \div 0.1$$

$$0.\underline{1}) \overline{0.8} \rightarrow 1 \overline{) 8}$$

OR

$$0 \times 1 \overline{) 0 \times 8}$$
$$\overline{) \dots = 8}$$

TO ESTIMATE

USE BENCHMARKS

EXAMPLE

$$52.1 \div 0.9$$

close to
52.0

close to
1

write quotient
close to 52
 $\hookrightarrow 52.1 \div 0.9$

$$52 \div 1$$

52