

2.  $734.2 \text{ ms} = \text{_____ s}$

← unit    number →

b.u.m.

$$\frac{734.2 \cancel{\text{ms}} \times 0.001 \text{ s}}{\div 1 \cancel{\text{ms}}} = 0.7342 \text{ s}$$

3.  $4.3 \text{ kL} = \text{_____ L}$

$$\frac{4.3 \cancel{\text{kL}} \times 1000 \text{ L}}{1 \cancel{\text{kL}}} = 4300 \text{ L}$$

15. \_\_\_\_\_  $\mu\text{s} = 0.000432\text{s}$   
given

$$\begin{array}{c}
 \text{0.000432} \cancel{\text{s}} \\
 \hline
 \text{.000001} \cancel{\text{s}}
 \end{array}
 \times \frac{1 \mu\text{s}}{1} = \boxed{432 \mu\text{s}}$$

$$1 \text{ cm}^3 = 1 \text{ mL}$$

$$\begin{array}{c}
 1 \text{ mL} \\
 \hline
 1 \text{ cm}^3
 \end{array}$$

8.  $223 \mu\text{g} = \underline{\hspace{2cm}} \text{mg}$

~~$223 \mu\text{g} \mid 1 \text{mg}$~~

~~$\mid 1 \mu\text{g}$~~

$223 \mu\text{g} \mid \times .000001 \text{g} \mid \times 1 \text{mg}$

$\mid \div 1 \mu\text{g} \mid \div 0.001 \text{g}$

$0.223 \text{mg}$

1.  $0.075 \text{ m} = \underline{\hspace{2cm}} \text{ cm}$

2.  $862 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

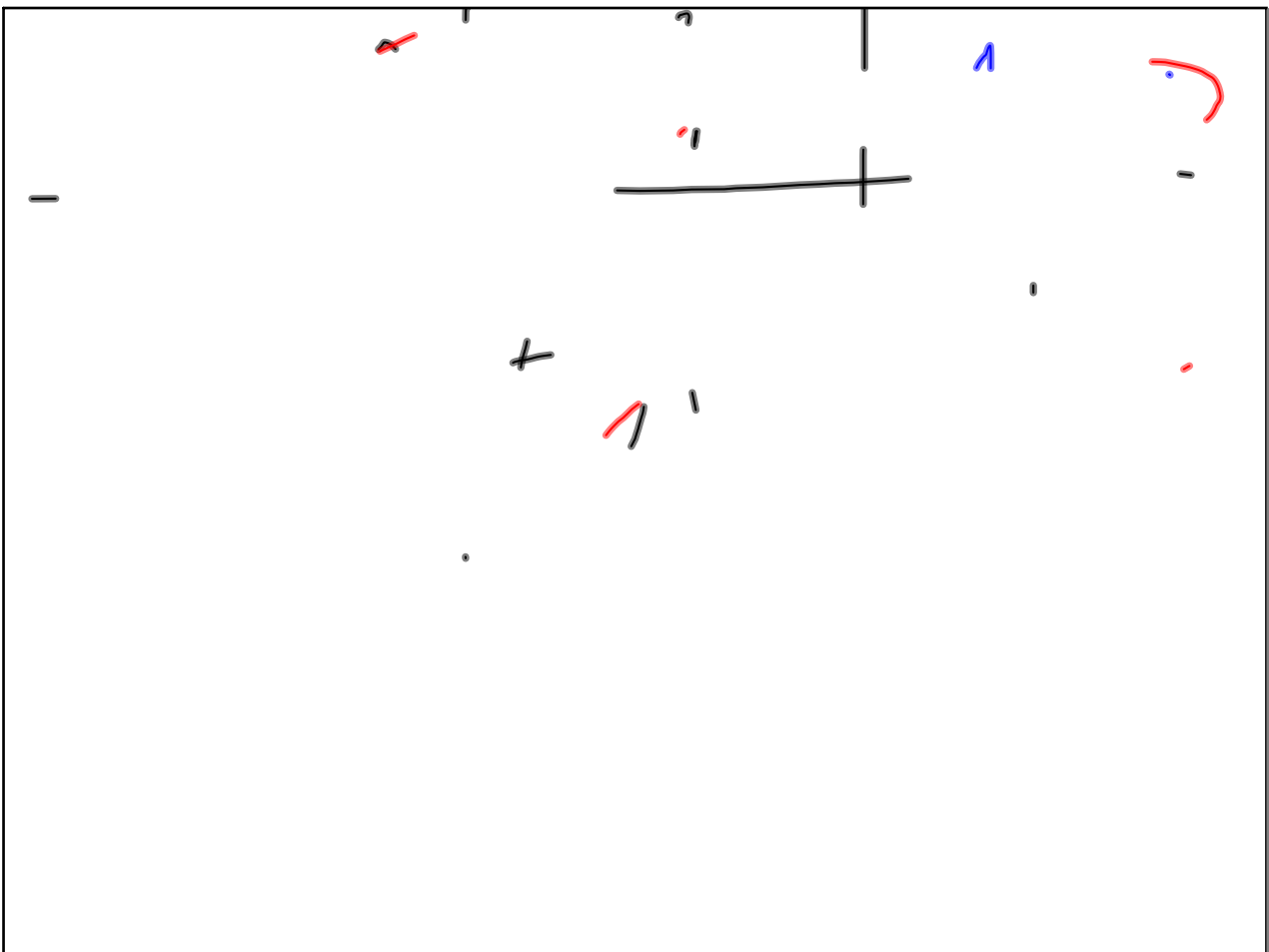
8.  $997 \text{ cg} = \underline{\hspace{2cm}} \mu\text{g}$

$997 \text{ cg} \mid 0.01 \text{ g} \mid 1 \mu\text{g} = 9970000 \mu\text{g}$

$\mid 1 \text{ cg} \mid 0.000001 \text{ g}$

$$5.86 \text{ mi} = \text{mm}$$

$$\frac{5.86 \text{ m}}{1} \times \frac{1 \text{ mm}}{.001 \text{ m}}$$



$$\frac{223 \text{ Mg}}{1 \text{ Mg}}$$

$$\text{g} \rightarrow \text{g} \rightarrow \text{mg}$$

$$\frac{1 \text{ } ^{1000} \text{ g}}{1 \text{ } ^{1000} \text{ g}}$$

$$\frac{1 \text{ mg}}{1 \text{ mg}}$$

1.  $0.075 \text{ m} = \underline{\hspace{2cm}} \text{ cm}$

$0.075 \text{ m}$	$1 \text{ cm}$
	$.07 \text{ m}$

2.  $862 \text{ kg}$

$8.997 \text{ cg}$	$.01 \text{ g}$	$1 \text{ Mg}$
	$1 \text{ cg}$	$.000001 \text{ g}$

$\text{cg} \rightarrow \text{g} \rightarrow \text{Mg}$

$$\textcircled{10}. 581 \text{ Kg} = \underline{\hspace{2cm}} \text{ cg}$$

$581 \text{ Kg}$	$1000 \frac{\text{g}}{\text{kg}}$	$1 \text{ cg}$
<hr style="border: none; border-top: 1px solid black;"/>	$1 \text{ Kg}$	$.01 \text{ g}$

$210 \text{ lbs}$	$1 \text{ kg}$
<hr style="border: none; border-top: 1px solid black;"/>	$2.2 \text{ lbs}$

$$2.2 \text{ lbs} = 1 \text{ Kg}$$

#3)  $4.3 \text{ kL} = \underline{\hspace{2cm}} \text{ L}$   
 given wanted

$\frac{4.3 \cancel{\text{kL}}}{1 \cancel{\text{kL}}}$	$\times \frac{1000 \text{ L}}{1 \text{ kL}}$	$= 4300 \text{ L}$
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↙ b.u.m.  
↖ unit w/prefix gets "1"

#4)  $5.86 \text{ m} = \underline{\hspace{2cm}} \text{ mm}$   
 unit number

$\frac{5.86 \cancel{\text{m}}}{0.001 \cancel{\text{m}}}$	$\times \frac{1 \text{ mm}}{1 \text{ m}}$	$= 5860 \text{ mm}$
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#6)  $152.7 \text{ mg} = \text{_____ g}$

<del><math>152.7 \text{ mg}</math></del>	$0.001$	$\text{g}$	=	$0.1527 \text{ g}$
	$1$	<del><math>\text{mg}</math></del>		

↙ (from circled 'g' above)

#8)  $223 \text{ } \mu\text{g} = \text{_____ mg}$

↗  $\text{g}$  ↘

<del><math>223 \text{ } \mu\text{g}</math></del>	<del><math>1</math></del>	<del><math>\text{mg}</math></del>
	<del><math>1</math></del>	<del><math>\mu\text{g}</math></del>

<del><math>223 \text{ } \mu\text{g}</math></del>	<del><math>0.000001 \text{ g}</math></del>	$1 \text{ mg}$	=	$0.223 \text{ mg}$
	<del><math>1 \text{ } \mu\text{g}</math></del>	<del><math>0.001 \text{ g}</math></del>		

$$\#1) 0.075 \text{ m} = \text{---} \text{ cm}$$

$$\#4) 34.23 \text{ ms} = \underline{34230} \text{ } \mu\text{s}$$

$$\begin{array}{c|c|c} 34.23 \text{ ms} & \cdot 0.001 \text{ s} & \\ \hline & 1 \text{ ms} & \cdot 0.000001 \text{ s} \\ & & \mu\text{s} \end{array}$$

$$\#8) 997 \text{ g} = \text{---} \text{ } \mu\text{g}$$

$$\#3) 4.3 \text{ kL} = \text{---} \text{ L}$$

$$\begin{array}{c|c} 4.3 \text{ kL} & 1000 \text{ L} \\ \hline & 1 \text{ kL} \end{array} = \boxed{4300 \text{ L}}$$

↙ b.u.m.  
↖ always

#4)  $5.86\text{m} = \text{_____ mm}$

given  $\swarrow$  wanted  $\swarrow$

$5.86\text{m}$	$1\text{ mm}$	$= 5860\text{mm}$
$0.001$	$1\text{ m}$	

*copy unit*

#8)  $223\text{ }\mu\text{g} = \text{_____ mg}$

~~$223\text{ }\mu\text{g} \quad | \quad 1\text{ mg}$~~

~~$1\text{ }\mu\text{g}$~~

$223\text{ }\mu\text{g}$	$\times 0.000001\text{ g}$	$ $	$\times 1\text{ mg}$	$= 0.223\text{ mg}$
	$\div 1\text{ }\mu\text{g}$		$\div 0.001\text{ g}$	

#16)  $648.0 \text{ cg} = \frac{648.0}{100} \text{ kg}$

$\xrightarrow{\text{g}}$   $\xrightarrow{\text{kg}}$   
 $\leftarrow \text{unit}$   
 $\text{number} \rightarrow$

$648.0 \text{ cg}$	$\times 0.01 \text{ g}$	$\times 1 \text{ kg}$	$0.00648$ $= \text{ kg}$
$\div 1 \text{ g}$	$\div 10000 \text{ g}$		

#1)  $0.075 \text{ m} = \underline{7.5} \text{ cm}$

#11)  $837 \text{ Mm} = \underline{\hspace{2cm}} \text{ m}$

#8)  $997 \text{ cg} = \underline{9970000} \text{ ug}$

$997 \text{ cg}$	$\times 0.01 \text{ g}$	$\times 1 \text{ ug}$
$\div 1 \text{ cg}$	$\div 0.000001 \text{ g}$	

$$\#17) 17.9 \text{ dL} = \underline{\hspace{2cm}} \text{ L}$$