Stewards Academy

Maths Autumn 1

Year 10 Foundation

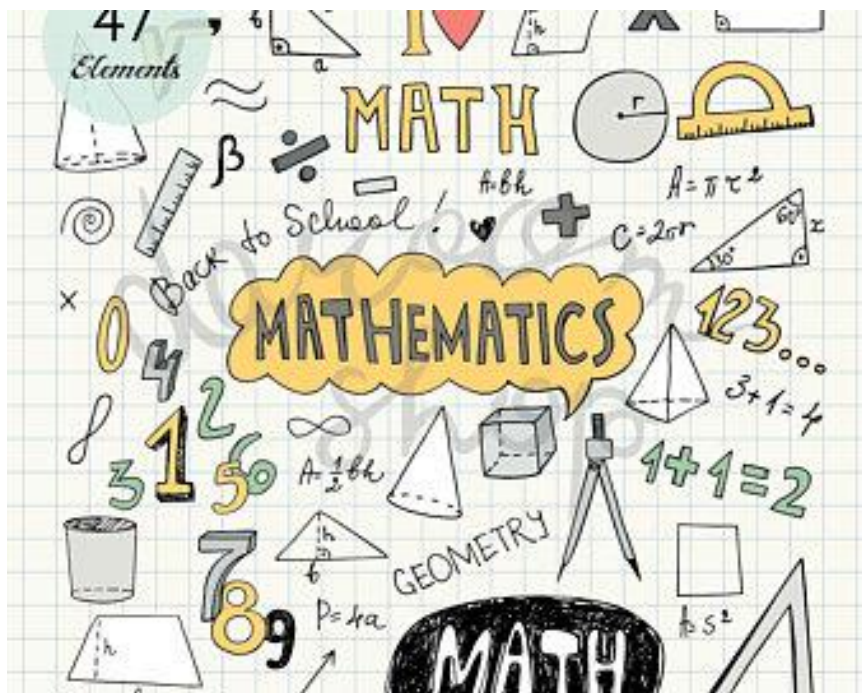# Blended Learning Booklet

Name:

Form:

Each week covers topics you would complete in your 3 Maths lessons that week. Write out the title and LI and then complete the tasks.

All video links are online using the ClassCharts link.

The Knowledge Organiser on page 4 has further practice questions and page numbers linking to your pocket revision guides for all the key information and examples to help you with this unit.

Upload all work onto ClassCharts for feedback.

Stewards Academy

Contents

Stewards Academy

Big Picture

Stewards Academy

Knowledge Organiser

Stewards Academy

Stewards Academy

- **LI: Understand and use place value when working with very large or very small numbers**

Standard Form

This is always in the form $x \times 10^n$, where $1 \leq x < 10$. For very big numbers, n will be positive and for very small numbers n will be negative.

Demonstration Video:

https://corbettmaths.com/2013/04/28/standard-form/

Convert 360,000 to standard form.

$3\cdot60000$

3.6×10^5

A number: $1 \leqslant x < 10$ Integer power of 10

Convert 70,400 to standard form.

$7\cdot0400$

7.04×10^4

Convert 0.00073 to standard form.

0.00073

7.3×10^{-4}

A number: $1 \leqslant x < 10$ Integer power of 10

Convert 0.0081 to standard form.

0.0081

8.1×10^{-3}

Task: Convert the numbers on the right to standard form and cross off the answers in the grid. Put the answers that are left over into the boxes at the bottom and find the missing number.

Name

4.11×10^{-6}	2.32×10^{-4}	6.39×10^5	5.99×10^7	3.57×10^{-7}
5.99×10^6	5.99×10^2	5.72×10^{-4}	3.57×10^{-6}	5.52×10^5
3.80×10^{-3}	3.80×10^5	5.99×10^0	5.99×10	3.83×10^{-3}
5.99×10^{-1}	5.72×10^3	5.99×10^2	3.83×10^5	5.99×10^4
3.80×10^{-6}	5.70×10^7	2.46×10^7	4.11×10^{-5}	3.80×10^6

Expressing in standard form

0.000572	3800000	57000000	0.00383
59900000	0.0000038	0.000000357	0.000232
0.00000411	5720	599	552000
639000	383000	0.00000357	380000
5990000	24600000	0.0000411	0.0038

MISSING NUMBER

Convert 2.37×10^5 to an ordinary number.

$2.37000 \cdot 000$

= 237000

Convert 9.05×10^5 to an ordinary number.

$9.05000 \cdot 000$

= 905000

Convert 6.4×10^{-4} to an ordinary number.

$0 \cdot 0006.4$

= 0.00064

Convert 1.06×10^{-3} to an ordinary number.

$00 \cdot 001.06$

= 0.00106

Tasks:

This table shows the distance in kilometres of the planets from the Sun.

Planet	Distance from the Sun (km)
Earth	1.5×10^8
Jupiter	7.78×10^8
Mars	2.28×10^8
Mercury	5.8×10^7
Pluto	5.92×10^9
Saturn	1.43×10^9
Uranus	2.87×10^9
Venus	1.08×10^8
Neptune	4.5×10^9

a) Write down each distance as an ordinary number.
b) Which planet is closest to the Sun? Explain how you can tell this form the standard form.
c) Which planet is furthest from the Sun?

★★★

Express in ordinary form

1) 4.6×10^3

2) 1.4×10^{-2}

3) 2.5×10^{-4}

4) 1.01×10^4

5) 2.7×10^{-4}

6) 1.99×10^3
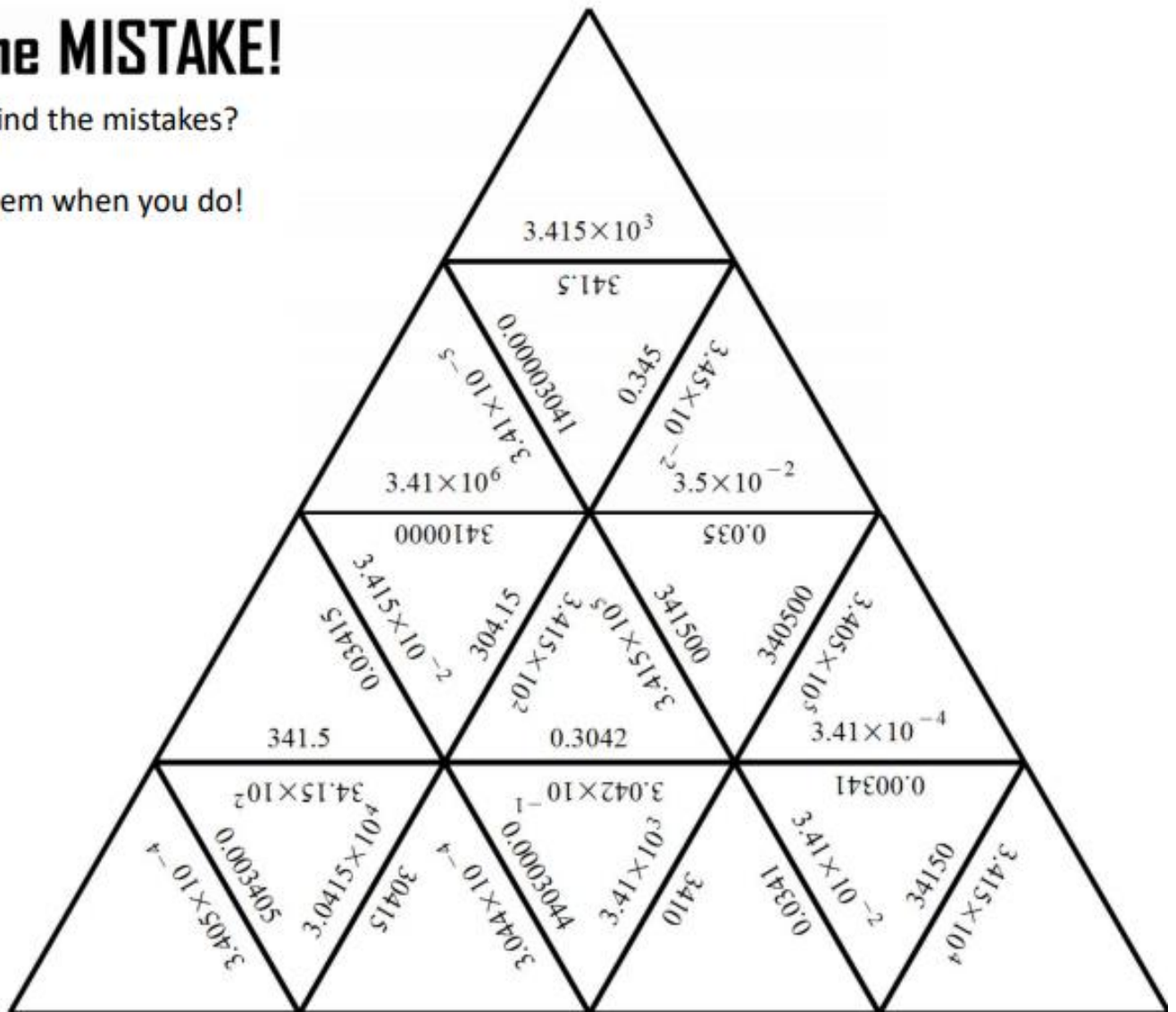
7) 6×10^{-3}

8) 5.5×10^2

. Three of these numbers are not written in standard form, which are they.
a) 3.05×10^4 b) 42.6×10^7 c) 0.5×10^5 d) 4.26×10^3
e) 7.45×10^{12} f) 22.6×10^9 g) 3.764×10^{23} h) 4.7×10^9

Question 6:   Write each of these numbers in standard form

(a) 72×10^3

(b) 84×10^6

(c) 500×10^2

(d) 210×10^4

(e) 0.8×10^7

(f) 0.46×10^5

(g) 0.06×10^8

(h) 0.007×10^{12}

(i) 3000×10^{14}

(j) 24×10^{-5}

(k) 0.8×10^{-10}

(l) 0.0055×10^{-2}

(m) 0.0372×10^{-9}

(n) 65213×10^{-7}

(n) 2933×10^{21}

(o) 759300×10^{-1}

SPOT the MISTAKE!

Can you find the mistakes?

Correct them when you do!

Exam Practice:

https://www.mathsgenie.co.uk/resources/5-standard-form-ws.pdf

- **LI: Calculate with and interpret standard form**

Demonstration Videos:

https://corbettmaths.com/2013/05/03/standard-form-addition/

https://corbettmaths.com/2013/04/29/standard-form-multiplication/

https://corbettmaths.com/2013/05/03/standard-form-division/

Tasks:

Question 10: Work out each of the following

(a) $5 \times 10^4 + 3 \times 10^4$

(b) $4 \times 10^3 - 2 \times 10^3$

(c) $2.5 \times 10^5 + 3.3 \times 10^5$

(d) $7 \times 10^{-2} + 2 \times 10^{-2}$

(e) $6 \times 10^3 + 8 \times 10^2$

(f) $2 \times 10^6 - 8 \times 10^5$

(g) $2.6 \times 10^8 + 4.5 \times 10^9$

(h) $5.12 \times 10^5 - 1.89 \times 10^4$

(i) $(8 \times 10^7) + (3 \times 10^5)$

(j) $5.07 \times 10^{10} + 2.77 \times 10^9$

(k) $6.12 \times 10^{-3} - 1.07 \times 10^{-2}$

(l) $4 \times 10^{-7} + 9 \times 10^{-5}$

(m) $3.44 \times 10^8 + 7.03 \times 10^6 + 9.89 \times 10^7$

Work out

$(3 \times 10^2) \times (2 \times 10^3)$

Work out

$(9 \times 10^5) \div (3 \times 10^2)$

Work out

$(5 \times 10^2) \times (4 \times 10^5)$

Work out

$(2 \times 10^5) \div (4 \times 10^2)$

⭐⭐	
Work out	
1)	$2 \times 10^3 \times 3 \times 10^4$
2)	$3 \times 10^2 \times 5 \times 10^2$
3)	$5 \times 10^3 \times 6 \times 10^2$
4)	$4.5 \times 10^3 \times 2 \times 10^{-1}$
5)	$2.5 \times 10^{-2} \times 4 \times 10^4$
6)	$8 \times 10^3 \times 4 \times 10$
7)	$1.5 \times 10^4 \times 4 \times 10^{-2}$
8)	$4 \times 10^{-3} \times 4.5 \times 10^3$

⭐⭐⭐	
Work out	
1)	$(8 \times 10^3) \div (2 \times 10^2)$
2)	$(1.5 \times 10^4) \div (3 \times 10^2)$
3)	$(1.8 \times 10^5) \div (3 \times 10^3)$
4)	$(2.4 \times 10^4) \div (6 \times 10^{-1})$
5)	$(3.2 \times 10^2) \div (4 \times 10^{-2})$
6)	$(4.9 \times 10^2) \div (7 \times 10^2)$
7)	$(8 \times 10^5) \div (5 \times 10^3)$
8)	$(3 \times 10^3) \div (6 \times 10^{-3})$

Exam Practice:

https://corbettmaths.com/wp-content/uploads/2013/02/standard-form-pdf.pdf

Stewards Academy

- **LI: Understand and calculate a percentage of a quantity and percentage increase and decrease**

Percentages

To find 10% of a number, divide by 10. Everything else can be found from there!

If using a calculator, you can write your percentage as a decimal multiplier.

e.g. 8% of 15 = 0.08 × 15

To find the original amount (after a percentage change), **divide** by the multiplier.

E.g. A coat has been reduced by 10% and now costs £72. Its original price is found by calculating 72 ÷ 0.9 = £80

Demonstration Video:

https://www.mathsgenie.co.uk/percentages.html

$400

Sam stole 60% of the money from the safe!

How can we calculate how much that is?

Addition	Multiplication
50% = $200	10% = $ 40
+ 10% = $ 40	×6 [ ] ×6
60% = $240	60% = $240

Which method do you prefer?

$300

Sam stole 35% of the money from the safe!

Addition	Multiplication & Addition
25% = $ 75	10% = $ 30
+ 10% = $ 30	×3 [ ] ×3
35% = $105	30% = $ 90
	+ 5% = $ 15
	35% = $105

KNOWLEDGE CHECK

David went on holiday with his family. He took £500 to pay for everything.

Calculate how the money was divided.

£500

Transport: 25% = £125

Accommodation: 30% = £150

Food: 15% = £75

Ice Cream: 3% = £15

Drinks: 7% = £35

How much was he left with? £100

9

Stewards Academy

Tasks:

Leap Frog! [1]

Start in the middle and work outwards!

- 25% =
- 75% =
- 60% =
- 150% =
- 50% =
- 10% =
- 200% =
- 100% = 400
- 5% =
- 15% =
- 300% =
- 1% =
- 20% =
- 400% =
- 6% =
- 40% =
- 80% =

Leap Frog! [3]

Start at 80%!

- 25% =
- 75% =
- 60% =
- 150% =
- 50% =
- 10% =
- 200% =
- 100% =
- 5% =
- 15% =
- 300% =
- 1% =
- 20% =
- 400% =
- 6% =
- 40% =
- 80% = 100

Demonstration Video:

https://corbettmaths.com/2012/08/21/increasing-or-decreasing-by-a-percentage/

https://corbettmaths.com/2012/08/21/multipliers-for-increasing-and-decreasing-by-a-percentage/

Non-Calculator Task:

Answer GRID Cross off each answer, then total the remaining 5.

Decrease £670 by 10%	Increase £550 by 10%	Decrease £440 by 20%	Increase £320 by 20%	Decrease £120 by 30%
Increase £680 by 30%	Decrease £720 by 40%	Increase £200 by 40%	Decrease £380 by 50%	Increase £580 by 50%
Decrease £360 by 60%	Increase £150 by 60%	Decrease £840 by 70%	Increase £950 by 70%	Decrease £610 by 80%
Increase £220 by 80%	Decrease £510 by 90%	Increase £800 by 90%	Decrease £520 by 40%	Increase £660 by 40%

£256	£384	£1520	£252	£432
£122	£280	£451	£1615	£605
£924	£620	£884	£51	£312
£84	£352	£389	£603	£284
£870	£190	£144	£240	£396

Total: **1**

Answer GRID Cross off each answer, then total the remaining 5.

Decrease £540 by 15%	Increase £560 by 15%	Decrease £340 by 35%	Increase £740 by 15%	Decrease £280 by 35%
Increase £260 by 35%	Decrease £180 by 45%	Increase £360 by 45%	Decrease £700 by 55%	Increase £640 by 55%
Decrease £480 by 65%	Increase £220 by 65%	Decrease £840 by 65%	Increase £280 by 55%	Decrease £760 by 85%
Increase £160 by 85%	Decrease £780 by 95%	Increase £520 by 95%	Decrease £580 by 45%	Increase £440 by 15%

£1014	£851	£83	£456	£644
£315	£114	£992	£351	£841
£296	£319	£459	£462	£168
£258	£363	£39	£522	£294
£99	£221	£434	£506	£182

Total: **2**

Calculator Task:

https://corbettmaths.com/wp-content/uploads/2013/02/percentage-of-an-amount-calculator-pdf.pdf

==Week 4: Percentages==

- **LI: Be able to calculate percentage change, reverse percentages and repeated percentage change**

Percentage Change

Demonstration Video:

https://www.mathsgenie.co.uk/percentage-change.html

Task:

https://www.mathsgenie.co.uk/resources/3-percentage-change-ws.pdf

Reverse Percentages

Demonstration Videos and Examples:

https://www.mathsgenie.co.uk/reverse-percentages.html

https://corbettmaths.com/2013/02/15/reverse-percentages/

Original Amount ——→ **100% value**

EXAMPLES

(a) Mavis paid £43.90 for a skirt that had been reduced by 15% in a sale. What was the original price?

Decrease of 15% ——→ **85% value**

÷ 85
85% = £43.90
÷ 85

1% = £0.5165

x 100
100% = £51.65
x 100

Original Price
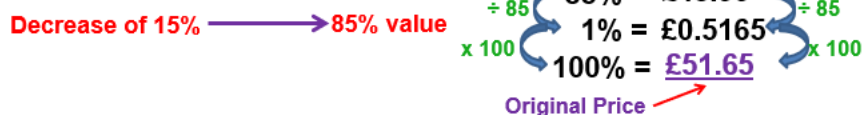
(b) Junior received a 8% pay rise. His new salary is £19200. What was his original salary?

Increase of 8% ——→ **108% value**

÷ 108
108% = £19200
÷ 108

1% = £177.78

x 100
100% = £17778
x 100

Original Salary
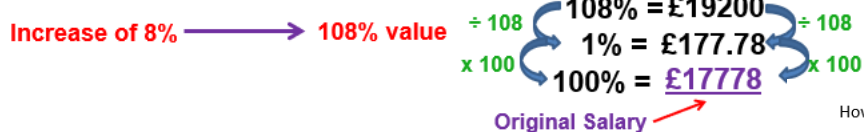
Exam Practice:

https://www.mathsgenie.co.uk/resources/84_reverse-percentages.pdf

Oil went up 20% and cost $48.
How much was it before the increase?

× 1.2

100%   →   120%
? $48

÷ 1.2

A T-shirt was 60% off and cost $54.
How much was it before the sale?

× 0.4

100%   →   40%
? $54

÷ 0.4
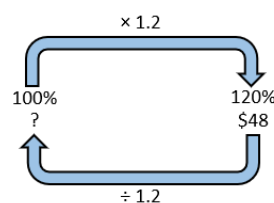
Oil was $65 after a 30% increase.
Original price = ?

Oil was $78 after a 44% increase.
Original price = ?

Oil was $92 after a 7% increase.
Original price = ?
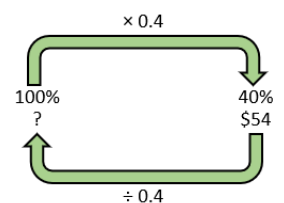
A T-shirt was $42 with 30% off.
Original price = ?

A T-shirt was $43 with 24% off.
Original price = ?

A T-shirt was $35 with 8% off.
Original price = ?

For each card, decide whether the information in the grey box is **TRUE** or **FALSE**.   If it is **FALSE**, correct it!

A

20% off!
Now £48!

Was: £70

B

30% extra free!
Now 442 ml!

Was: 340 ml

C

15% off!
Now £34!

Was: £45

D

25% extra free!
Now 650 g!

Was: 500 g

E

Shelly invested money &
gained 8% over the year.
She ended up with £270

Shelly invested £240

F

Only £56!
(Includes 12% tax)

Pre-Tax: £52

G

33% bigger!
Now 532 ml!

Was: 400 ml

H

Quarter off!
Now £12,750!

Was: £17,000

I

5% discount!
Now £61.75!

Was: £65

J

Mike invested money &
lost 23% over the year.
He ended up with £346.50

Mike invested £400

K

35% extra free!
Now 459 g!

Was: 340 g

L

Only £516!
(Includes 7.5% tax)

Pre-Tax: £450

M

Sal invested some money
& the amount increased by
10% every year for 3 years.
She withdrew £2662

Sal invested £2047.

N Max invested money &
gained 15% in the 1st year.
He then lost 20% in
the 2nd year.
He ended up with £3680

Max invested £4000

O

Over the last 2 years a tree
grew 30% per year.
The plant is now 1.352m tall.

The tree was 70 cm tall.

P Trish invested money &
lost 40% in the 1st year.
She then gained 8% in
the 2nd year.
She ended up with £3564

Trish invested £5200

Repeated Percentage Change

Demonstration Video and Examples:

https://corbettmaths.com/2012/08/21/compound-interest/

Formula: Years
Quantity × Multiplier

Formula: Years
Quantity × Multiplier

Mark deposited **£230** in a bank.
He earned
7% compound interest every year.

Marge invested **£180** in a company.

She lost **11%** every year!

How much was in the account after **4 years**?

How much was the
investment worth after **5 years**?

Multiplier:
$= 100\% + 7\%$
$= 1.0 + 0.07$
$= 1.07$

Multiplier:
$= 100\% - 11\%$
$= 1.0 - 0.11$
$= 0.89$

$230 \times 1.07^4 = $ **£301.48**

$180 \times 0.89^5 = $ **£100.51**

Task:

Work out

1) An investment of £150 increases by 2.5% each year, for 3 years.

2) An investment of £200 increases by 4% each year, for 3 years.

3) An investment of £350 increases by 7% each year, for 5 years.

4) An investment of £850 increases by 7% each year, for 3 years.

5) An investment of £300 increases by 5% each year, for 4 years.

6) An investment of £700 increases by 5% each year, for 2 years.

7) An investment of £450 decreases by 5.5% each year, for 3 years.

8) An investment of £900 decreases by 1.5% each year, for 4 years.

9) An investment of £200 decreases by 4% each year, for 3 years.

10) An investment of £800 decreases by 3.5% each year, for 6 years.

11) An investment of £300 decreases by 5% each year, for 4 years.

12) An investment of £350 decreases by 7% each year, for 5 years.

Exam Practice:

https://corbettmaths.com/wp-content/uploads/2019/09/Compound-Interest-pdf-1.pdf

Stewards Academy

- **LI: Apply and interpret limits of accuracy including upper and lower bounds**

> **Bounds and Accuracy**
>
> The **upper bound** of a number is the largest possible number it could have been before rounding.
>
> The **lower bound** of a number is the smallest possible number it could have been before rounding.
>
> E.g. A number has been rounded to the nearest whole number. The answer is 15.
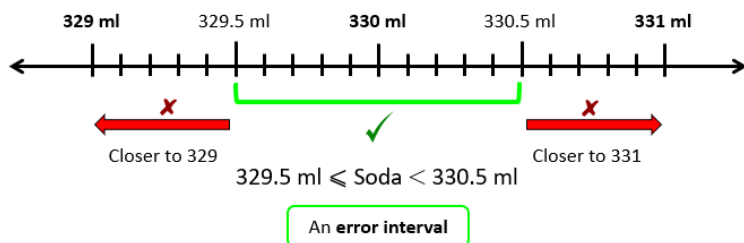>
> Its lower bound is 14.5 and its upper bound is 15.5

Demonstration Video and Examples:

https://corbettmaths.com/2013/05/28/lower-and-upper-bounds/

There is 330 ml of soda, to the nearest ml, in the can.

How much soda is in the can?

330 ml

| 329 ml | 329.5 ml | **330 ml** | 330.5 ml | **331 ml** |

Closer to 329   ✓   Closer to 331

$$329.5 \text{ ml} \leqslant \text{Soda} < 330.5 \text{ ml}$$

An **error interval**

The amount of soda is **equal to or greater** than 329.5 ml, but **less** than 330.5 ml.

A gem is weighed.
The scales are accurate to 1 decimal place (a tenth of a gram).

3.6

What is the maximum & minimum **real** weight of the gem?

| 3.5 | 3.55 | **3.6** | 3.65 | 3.7 |

Closer to 3.5   ✓   Closer to 3.7

$$3.55 \leqslant \text{Weight} < 3.65$$
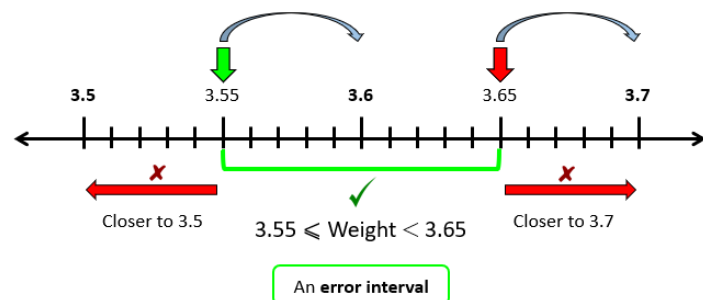
An **error interval**

The real weight is **equal to or greater** than 3.55 g, but **less** than 3.65 g.

A sweet weighs 5.02 g
to 2 decimal places.

Write down an error interval for
the weight of the sweet.

Level of accuracy = 0.01 (hundredths)

Half the accuracy = 0.005

$$5.015 \leqslant W < 5.025$$

A bottle contains 400 ml
to 1 significant figure.

Write down an error interval for
the volume in the bottle.

Level of accuracy = 100 (hundreds)

Half the accuracy = 50

$$350 \leqslant V < 450$$

Stewards Academy

Tasks:

These numbers have been rounded to the nearest 10.
Find the minimum & maximum exact number.

Rounded Number	Minimum	Maximum
40		
80		
120		
430		
500		

These numbers have been rounded to the nearest 100.

Rounded Number	Minimum	Maximum
300		
600		
1,400		
0		
2,000		

These numbers have been rounded to the nearest 1000.

Rounded Number	Minimum	Maximum
2,000		
5,000		
0		
20,000		
122,000		

https://corbettmaths.com/wp-content/uploads/2013/02/limits-of-accuracy-pdf1.pdf

SPOT the MISTAKE!

Can you find the mistakes?
Correct them when you do!

![Stewards Academy logo] *Stewards Academy*

- **LI: Use standard units of measure and related concepts, using decimal quantities where appropriate**

Demonstration Videos:

https://corbettmaths.com/2014/01/16/metric-units-for-length/

https://corbettmaths.com/2014/01/16/metric-units-for-mass/

https://corbettmaths.com/2014/01/16/metric-units-for-capacity/

Converting Between Metric Units

Length:

cm $\xrightarrow{\times 10}$ mm	m $\xrightarrow{\times 100}$ cm	km $\xrightarrow{\times 1000}$ m
$\div 10$	$\div 100$	$\div 1000$

Mass:

g $\xrightarrow{\times 1000}$ mg	kg $\xrightarrow{\times 1000}$ g	t $\xrightarrow{\times 1000}$ kg
$\div 1000$	$\div 1000$	$\div 1000$

Volume:

l $\xrightarrow{\times 1000}$ ml	cl $\xrightarrow{\times 10}$ ml	l $\xrightarrow{\times 100}$ cl
$\div 1000$	$\div 10$	$\div 100$

Tasks:

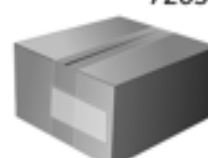**https://corbettmaths.com/wp-content/uploads/2020/05/Metric-Units.pdf**

Stewards Academy
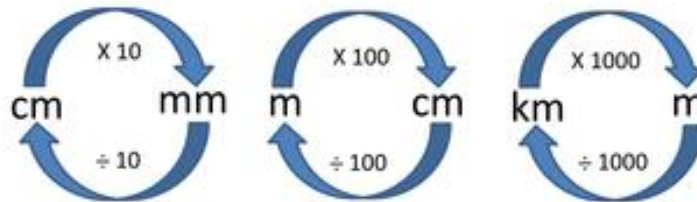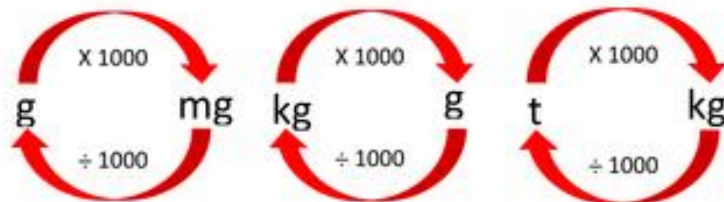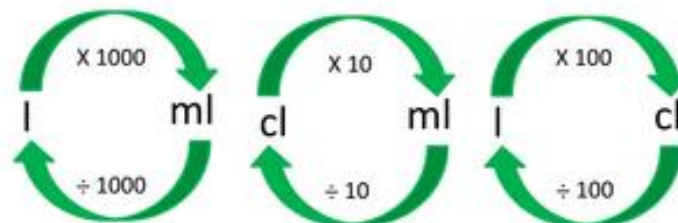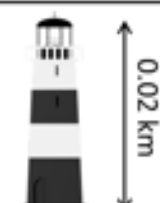
Each picture is a **real-life** object. Do you think the measurements are correct? Sort the cards into 3 groups: **Right, Wrong, Maybe**

A 220 mm (football)	**B** 0.5 l (water bottle)	**C** 0.0002 kg (balloon)	**D** 24000 m (mountain)
E 60 ml (water drop)	**F** 0.14 m (phone)	**G** 30000 g (motorbike)	**H** 0.072 km (aeroplane)
I 5000000 ml (pool)	**J** 130,000 m (globe)	**K** 0.02 m (dice)	**L** 1.8 l (cup)
M 0.02 km (lighthouse)	**N** 7263 g (box)	**O** 6000 mg (apple)	**P** 642.5 mm (t-shirt)

Demonstration Videos:

https://corbettmaths.com/2013/12/13/converting-between-metric-units-for-area/

https://corbettmaths.com/2013/12/15/converting-metric-units-for-volume/

Tasks:

Name   *Metric Conversions Mixture*

0.5	500	0.55	0.45	50.4
5000	5	50000	300	30
40	0.03	45	3000	4
4.5	5.04	4500	0.504	350
3500	50	450	0.45	54

$45000 \text{ cm}^2 = \dots \text{m}^2$ $4.5 \text{ km} = \dots \text{m}$ $30000 \text{ m} = \dots \text{km}$ $3.5 \text{ cm}^3 = \dots \text{mm}^3$

$30000 \text{ cm}^3 = \dots \text{m}^3$ $0.003 \text{ m}^3 = \dots \text{cm}^3$ $0.4 \text{ m} = \dots \text{cm}$ $5040 \text{ cm} = \dots \text{m}$

$5040 \text{ cm}^2 = \dots \text{m}^2$ $5040 \text{ mm}^3 = \dots \text{cm}^3$ $45 \text{ mm}^2 = \dots \text{cm}^2$ $0.5 \text{ m}^2 = \dots \text{cm}^2$

$450 \text{ mm} = \dots \text{cm}$ $3.5 \text{ cm}^2 = \dots \text{mm}^2$ $0.05 \text{ m}^3 = \dots \text{cm}^3$ $4.5 \text{ cm}^2 = \dots \text{mm}^2$

$500 \text{ mm}^3 = \dots \text{cm}^3$ $3 \text{ cm}^2 = \dots \text{mm}^2$ $5400 \text{ mm}^2 = \dots \text{cm}^2$ $5 \text{ cm} = \dots \text{mm}$
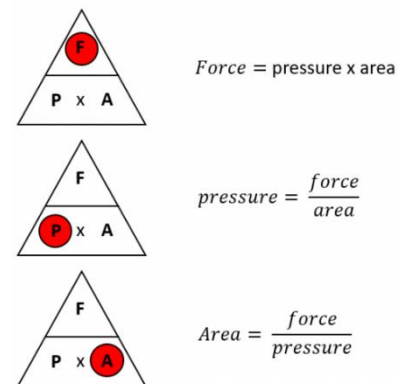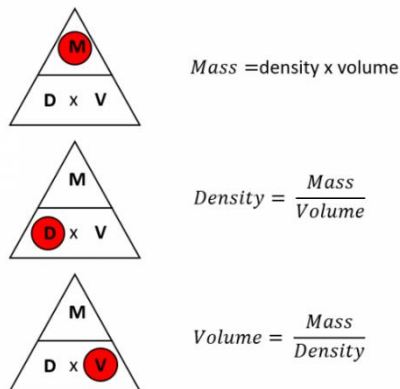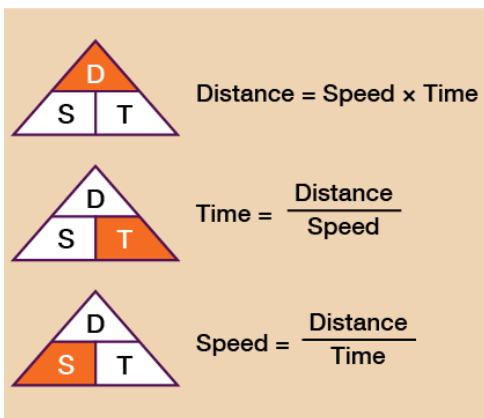
TOTAL

https://corbettmaths.com/wp-content/uploads/2013/02/converting-areas-volumes-pdf.pdf

Week 7: Compound Measures

- **LI: Change freely between related standard units and compound units**

Distance = Speed × Time

Time = $\dfrac{Distance}{Speed}$

Speed = $\dfrac{Distance}{Time}$

$Mass = density \times volume$

$Density = \dfrac{Mass}{Volume}$

$Volume = \dfrac{Mass}{Density}$

$Force = pressure \times area$

$pressure = \dfrac{force}{area}$

$Area = \dfrac{force}{pressure}$

Demonstration Videos:

https://corbettmaths.com/2016/01/01/speed-distance-time/

https://corbettmaths.com/2016/06/07/density/

https://corbettmaths.com/2016/07/28/pressure/

Tasks:

Speed, Distance, Time

★

Calculate the average speed

1) A car travels 60 km in 2 hours

2) A cyclist travels 18 miles in 1 hour 30 minutes

3) A girl cycles 4 km in 20 minutes

4) A train travels 140 km in 1 hour 45 minutes

5) A car travels 6 km in 5 minutes

6) A cyclist travels 3 km in 10 minutes

★★

Calculate the distance

1) A car travels at a speed of 40 km/h for 2 hours

2) A train travels at a speed of 60 mph for 1 hour 20 minutes

3) A cyclist travels at a speed of 20 km/h for 15 minutes

4) A snails travels at a speed of 4 cm per minute for 210 seconds

5) A car travels at a speed of 72 mph for 35 minutes

6) A train travel at a speed of 84 mph for 3 hours 10 minutes

★★★

Calculate the time

1) A car covers a distance of 150 km at a speed of 60 km/h

2) A cyclist covers a distance of 12 km at a speed of 18 km/h

3) A train travels a distance of 60 miles at a speed of 80 mph

4) A taxi travels a distance of 4 miles at a speed of 24 miles per hour.

5) A car travels 100 km at a speed of 80 km/h

6) A train travels 210 km at a speed of 90 km/h

Stewards Academy

A	B	C
Density = Volume ÷ Mass	If the volume of an object increases while its mass stays the same, the object's density decreases.	Materials with a density less than 1 g/cm³ will sink in fresh water.
D 3 cm 24.3 g The density of this plastic cube is 0.9 g/cm³.	**E** 2.5 g/cm³ = 2500 kg/m³	**F** 7 cm This cube of lead weighs over 4 kg. Lead = 11.3 g/cm³
G Density × Volume = Mass	**H** 5 cm 940 g The density of this steel cube is 7.6 g/cm³.	**I** If you combine equal-size cubes of uranium (density = 19 g/cm³) and lead (11 g/cm³), the compound will have a density of 15 g/cm³.
J If you combine 280 g of gold (density = 20 g/cm³) with 500 g of silver (10 g/cm³). The compound has a density of 13 g/cm³.	**K** This plastic prism has a volume of 250 cm³. Plastic = 1.2 g/cm³ 300 g	**L** Metal A: 960 g & 55 cm³ Metal B: 4.3 kg & 300 cm³ Metal B is <u>more dense</u> than Metal A
M 8 cm 3 cm This square-based prism of copper weighs 640 g. Copper = 8.9 g/cm³	**N** 5 L of sea water (1.03 g/cm³) has a mass of 5.15 kg.	**O** 400 ml of concentrate syrup (2.3 g/cm³) is added to 3 litres of carbonated water (0.9 g/cm³) The mixture has a density of 1.06 g/cm³.
P Stone = 3.5 g/cm³ 224 g This stone square has a side length of 3 cm.	**Q** Metal A: 450 cm³ @ 7.5 g/cm³ Metal B: 200 cm³ @ 21.2 g/cm³ Alloy **AB** has a density of 11.5 g/cm³	**R** Metal A: 4.75 kg @ 12.5 g/cm³ Metal B: 325 cm³ @ 18.2 g/cm³ Alloy **AB** has a density of 15.1 g/cm³

https://corbettmaths.com/wp-content/uploads/2013/02/pressure-pdf.pdf

Exam Practice:

https://corbettmaths.com/wp-content/uploads/2013/02/speed-distance-time-pdf1.pdf

https://corbettmaths.com/wp-content/uploads/2018/04/Density-worksheet2.pdf

Stewards Academy

Assessment Ladder