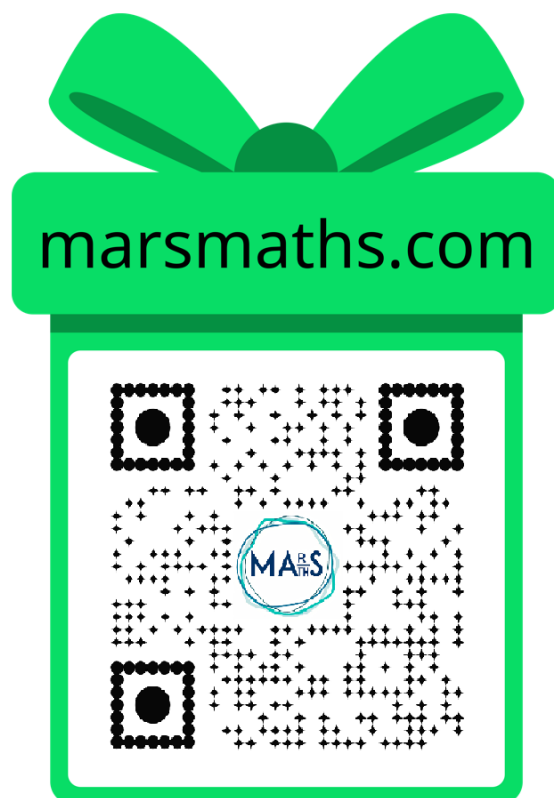


Maths Made Memorable

Entry 2

Based on the September 2019 specification

Marsida Horeshka
@marsmaths



About the author

Hi! My name is Marsida Horeshka. People often call me Mars, just like the planet (hence the name marsmaths). I've worked for about 10 years in the education sector, over half of which as a subject leader and manager.

In the two Ofsted visits to my class, I received extremely good feedback: in 2017 they highly praised my subject knowledge and teaching for mastery, with no areas for improvement, while in 2019 they described my lesson as 'the best GCSE maths lesson we've ever seen'. Coupled with great feedback from learners and colleagues, this gave me the confidence to start sharing my maths teaching strategies with the world.

I post maths teaching videos on YouTube, as **marsmaths**. I also regularly add resources on my website (marsmaths.com), such as questions and answers or worked solutions to practice papers. I'm always adding new resources to the website, so if you're interested, check regularly for updates.

You Can

It is quite common to feel like you're not doing very well in maths or that you're not a maths person. What I can say is that you're not the only one experiencing these feelings towards maths. If you want to do maths, then you CAN do maths. There is nothing to stop you. Scientific evidence shows that there is no such thing as 'a maths person' and anyone can do maths.

Struggling to complete a maths task though, is a good thing. You are learning if you struggle and if something was too easy, we wouldn't be doing it anyway. Why would we?

Challenge yourself to achieve L2, the level required for many jobs and further/higher education studies. I absolutely believe that you can. Can you? I challenge you. And once you've passed your exam, come and tell me on YouTube or social media – I'd love to celebrate your success.

How to use this booklet

Start with the self-assessment on the next page and identify topics you need to work on. Go to the relevant questions for the topic and check your answers against the answers given. If you need an explanation for the topic, you can check out my videos (or other videos) by reaching for the topic on YouTube.

Copyright

You can print and make copies of this booklet for teaching and learning purposes but no part of this publication may be hosted on a website or other electronic or mechanical methods without the permission of the author.

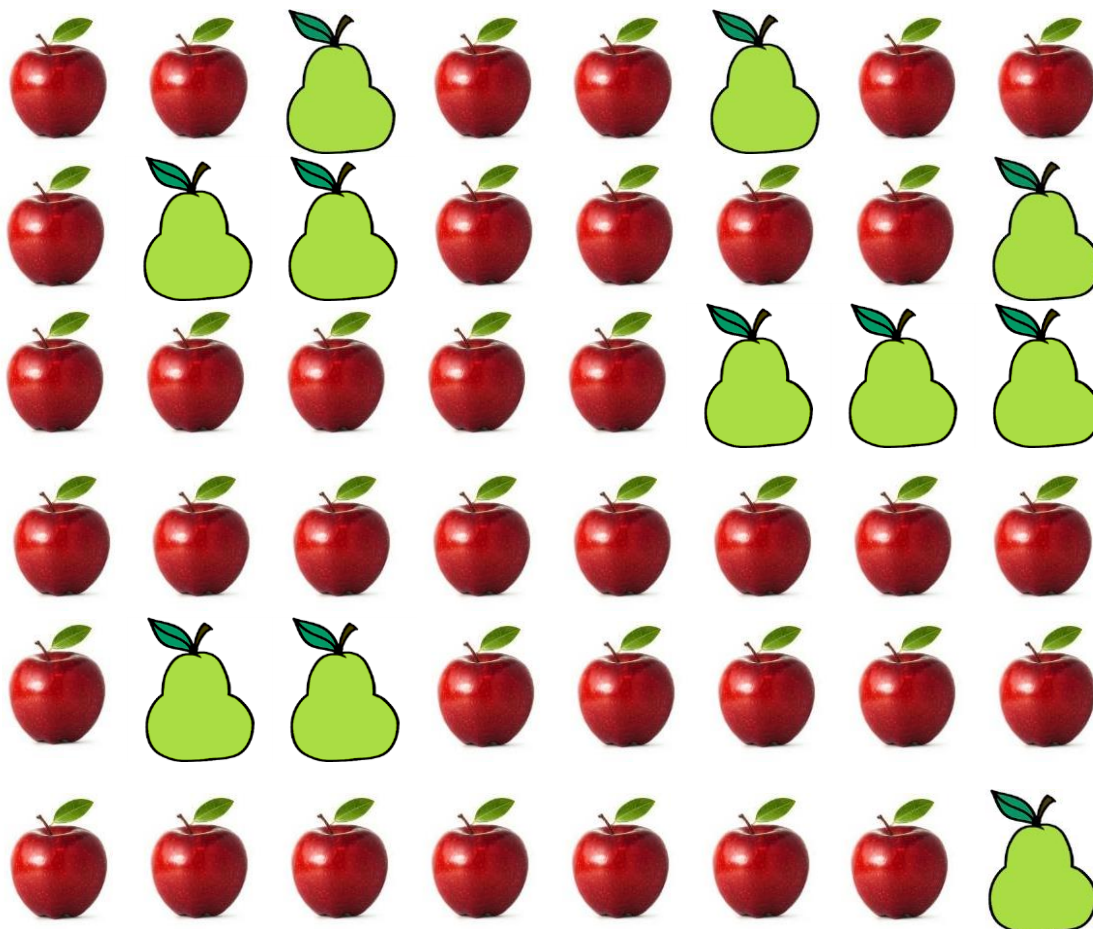
ENTRY 2 SELF-ASSESSMENT GRID

Ref	Topic	R	A	G	Questions Page	Answers Page	R	A	G
E2.1.1	Count in ones up to 100				5	58			
E2.1.2	Count in twos up to 100				7	58			
E2.1.3	Count in tens up to 100				9	58			
E2.2.1 & E2.2.2	Read and write numbers up to 200				11	58			
E2.2.3	Order and compare numbers up to 200				13	48			
E2.3.1	Recognise and sequence odd and even numbers				15	59			
E2.4.1	Recognise and interpret symbols +, -, ×, ÷, =				16	59			
E2.5.1	Add 2-digit numbers				18	59			
E2.5.2	Subtract 2-digit numbers				20	59			
E2.6.1	Multiply whole numbers from 0×0 to 12×12				22	59			
E2.7.1	Know the number of hours in a day and weeks in a year				24	59			
E2.8.1	Divide 2-digit by 1-digit numbers				25	59			
E2.9.1	Round to the nearest 10				27	59			
E2.10.1	Recognise a half, a quarter and a tenth				28	60			
E2.11.1	Read, write and use decimals (to 1 decimal place)				30	60			
E2.12.1	Calculate money with pence				31	60			
E2.12.2	Calculate money with pounds				33	60			
E2.13.1	Read time and date (including hours in digital clocks)				35	60			
E2.14.1	Length: use mm, m, cm, m and km				37	61			
E2.15.1	Weight: use g and kg				39	61			
E2.16.1	Capacity: use l and ml				40	61			

E2.17.1	Read and compare positive temperatures			41	61			
E2.18.1	Read and usescales (nearest labelled division)			42	61			
E2.19.1	Recognise and name 2D			44	62			
E2.19.2	Recognise and name 3D			46	62			
E2.20.1	Describe properties of 2D shapes			47	62			
E2.20.2	Describe properties of 3D shapes			48	62			
E2.21.1	Describe position and direction			49	62			
E2.22.1	Extract information from lists			51	62			
E2.22.2	Extract information from tables			52	63			
E2.22.3	Extract information from tally charts			53	62			
E2.22.4	Extract information from bar charts			54	62			
E2.23.1	Compare data from bar charts			55	62			
E2.24.1	Sort objects using 2 criteria			56	63			
E2.25.1	Represent information from one format into another			57	63			

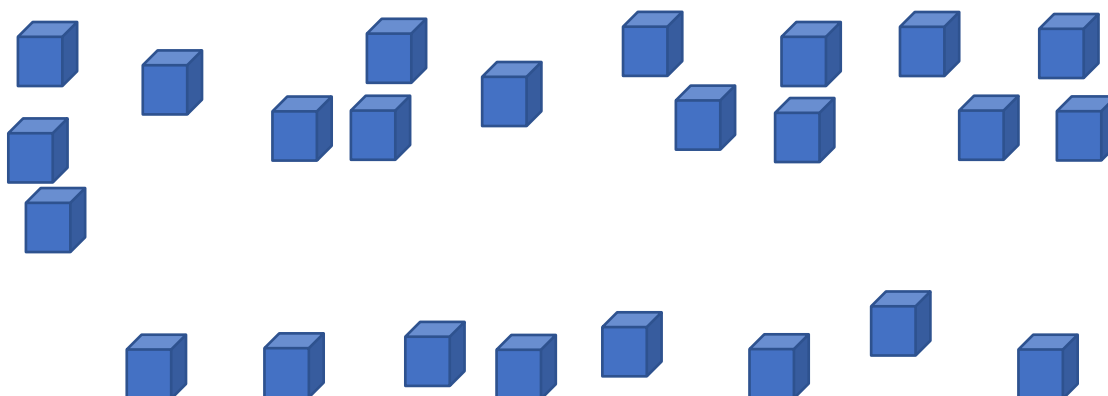
Entry 2.1.1: Count up to 100

1. Sidra has some apples and some pears. How many apples does she have?



Answer:

2. Janeneeds 26 cubes to build a shape. Does she have enough cubes?



Answer:

3. Continue this number pattern.

43, 44, 45, ..., 47,,, 50

4. Fill in the blank spaces in the pattern below.

.....,, 72, 73, 74, 75

5. Put these numbers in order, starting with the largest.

16

25

13

0

52

86

Answer:

6. Jane completes a number pattern, like below. Is she right?

18, 19, 81

Answer:

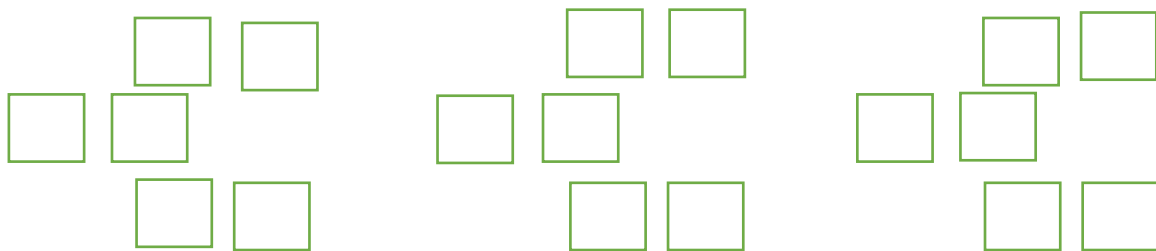
Entry 2.1.2: Count up to 100 in twos

1. How many socks are there?



Answer:.....

2. A teacher has put tables together like in the picture. In each table can sit two learners.



How many learners can sit in all tables?

Answer:.....

3. Continue this number pattern.

52, 54, 56, ..., 60,,, 66

4. Fill in the blank spaces in the pattern below.

.....,, 34, 36, 38, 40

5. A number patten starts like this:

1, 3, 5, 7

And goes up to 31. Would the number 21 be in this pattern?

Answer:

6. Suki completes a number pattern, like below. Is she right?

43, 45, 46, 48

Answer:

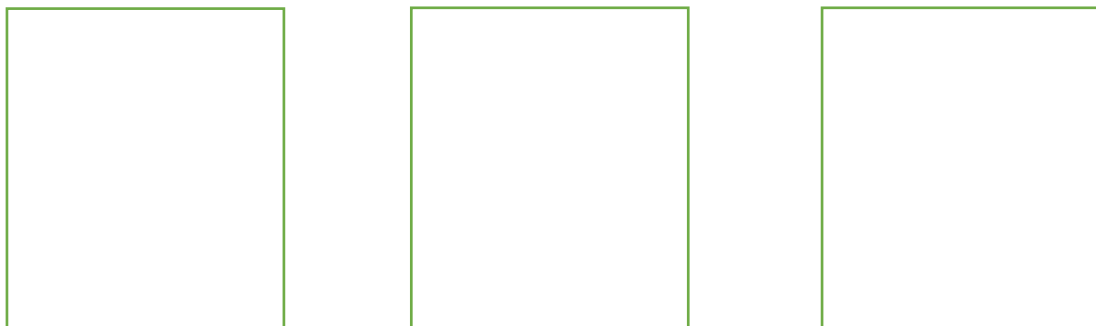
Entry 2.1.3: Count up to 100 in tens

1. How much money is there?



Answer:p

2. A teacher has put tables together like in the picture. In each table can sit ten learners.



Can 29 learners sit in all tables?

Answer:

3. Fill in the blanks in this number pattern.

30, 40, ..., 60, ..., ..., 90

4. Fill in the blank spaces in the pattern below.

.....,, 70, 80, 90, 100

5. A number pattern starts like this:

10, 20, 30, 40

And goes up to 100. Would the number 55 be in this pattern?

Answer:

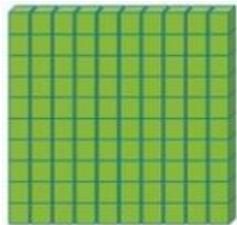
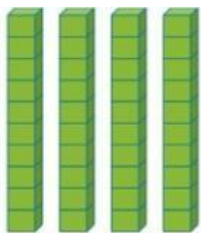

6. Suki completes a number pattern, like below. Is she right?

40, 50, 70, 80

Answer:

Entry 2.2.1 and Entry 2.2.2: Read and write numbers up to 200

1. Represent these numbers using cubes like in the example given.

141	Hundreds 	Tens 	Units 
108	Hundreds	Tens	Units
35	Hundreds	Tens	Units
60	Hundreds	Tens	Units

2. Match these numbers with the words that represent them

17
100
111
68

one hundred
sixty eight
one hundred and eleven
seventeen

3. Ayla writes the number **18** as 'eighty'. Is she right? Explain your answer.

4. How do you write the number 55 in words?

Answer:

5. Jane fills in the cheque below. Write the amount in digits in the cheque.

The Bank		Date _____
Pay	<i>one hundred and</i>	£
	<i>twenty pounds only</i>	
Signed _____		
•000123• 123456• 12345678•		

Entry 2.2.3: Order and compare numbers up to 200

1. Put these amounts in order, starting with the one with the highest value.

£ 108

£ 18

£ 180

£ 81

Answer:,,,

2. Which of these cheques has the highest value? Tick it.

The Bank		Date _____
Pay <u>one hundred and</u>	£ 	Signed _____
<u>twenty pounds</u>		
<u>only</u>		
Cheque No •0000 213•	Branch Sort Code 12 •34 56•	Account No 1234 56 78•

The Bank		Date _____
Pay <u>one hundred and two</u>	£ 	Signed _____
<u>pounds only</u>		
Cheque No •0000 213•	Branch Sort Code 12 •34 56•	Account No 1234 56 78•

Write the amounts in digits in the cheques.

3. Susan ordered some numbers from the lowest to the highest:

18, 91, 72, 103, 105

Is she right? Why?

Answer:

4. Here is the time it takes Andy to travel to college.

By bus 30 minutes

Walk 85 minutes

By bike 45 minutes

Andy wants to go to college in the shortest time possible. Should he use a bike, the bus or walk?

Answer:

5. Aaron says: '**Eighty is bigger than eighteen**'.

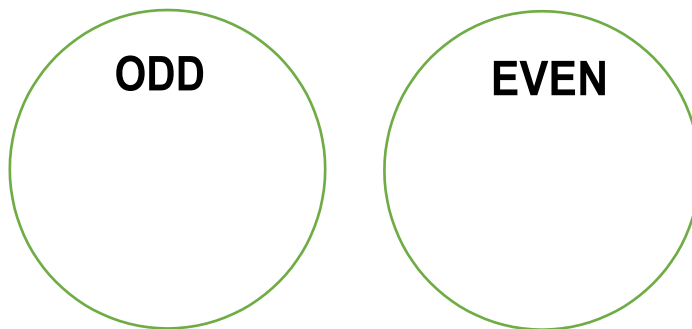
Is Aaron right? Explain your answer.

Answer:

Entry 2.3.1: Recognise and sequence odd and even numbers up to 100

1. Are the numbers below odd or even? Put them in the circle they belong.

8, 11, 25, 50, 56, 77, 81, 100



2. Becky is counting her socks. Continue counting.

12 14, 16, , , 22

3. Add the missing numbers in the pattern below:

....., 39, 41, 43,

4. Ola says: 'After each even number, comes an odd number'. Is she right?
Explain.

.....

.....

Entry 2.4.1: Recognise and interpret +, -, x, ÷ and = symbols

1. Match these symbols with their meaning.

+
-
x
=
÷

subtract
equals
divide
add
times

2. Fill in the boxes below with one of these symbols: +, -, x, ÷ or =, so that the sentence is true.

$$\begin{array}{rclcl}
 6 & \square & 5 & = & 11 \\
 2 & \square & 7 & = & 14 \\
 12 & \div & 4 & \square & 3 \\
 20 & \square & 8 & = & 12 \\
 5 & \square & 1 & = & 5
 \end{array}$$

3. Write another two words that represent the meaning of the symbol.

x

times, ,

÷

....., share equally,

4. Nev writes:

$$5 = 10 - 2$$

He's made a mistake. What mistake has he made? Correct his answer.

Answer:.....
.....

5. Arfa had 80p in her pocket. She bought a pack of biscuits for 50p. How do you work out how much money she has left?

.....
.....
.....

Entry 2.5.1: Add 2-digit numbers

1. You buy two reusable carrier bags to put your shopping in, like below.



How much do both bags cost?

Answer:p

2. How many small squares are there altogether? Show your working.



.....

.....

.....

3. Fill in the gaps below:

$$27 + 15 = \dots$$

$$44 + 26 = \dots$$

$$12 + \dots = 35$$

$$58 + \dots = 66$$

$$\dots + 9 = 79$$

$$\dots + 14 = 93$$

4. Naila writes these maths sentences:

$$24 + 4 = 4 + 24$$

$$0 + 35 = 0$$

Do you agree with Naila? Explain your answer.

Answer:

5. Find another two numbers you can add which give the same total as $25 + 46$

Answer:

Entry 2.6.1: Subtract 2-digit numbers

1. You have 90p in your pocket.

You buy a plastic carrier bag to put your shopping in. The bag costs 44p.



44p

How much money do you have left after paying for the bag?

Answer:p

2. Lela needs to 24 portions of cake for her guests.

She has already made 8. How many more does she need to make.



Answer:

3. Fill in the gaps below:

$$39 - 5 = \dots$$

$$54 - 26 = \dots$$

$$55 - \dots = 12$$

$$76 - \dots = 8$$

$$\dots - 59 = 10$$

$$\dots - 4 = 81$$

4. Ayla writes these maths sentences:

$$24 - 4 = 4 - 24$$

$$25 - 0 = 25$$

Do you agree with Ayla? Explain your answer.

Answer:.....
.....

5. Find another two numbers you can subtract which give the same total as $34 - 3$.

Answer:

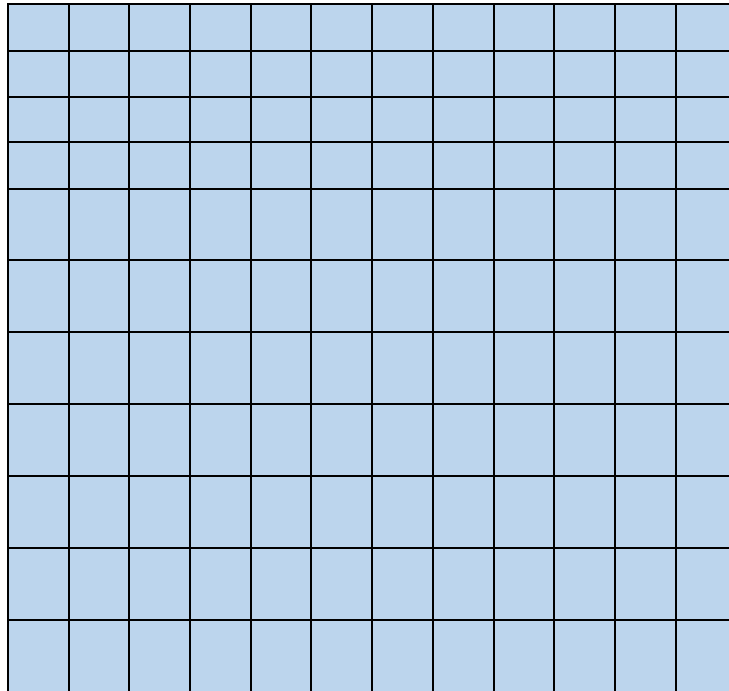
Entry 2.6.1: Multiply numbers in the range of 0x0 to 12x12

1. You go shopping and buy 3 packs of 6 cans of baked beans.



How many cans did you buy altogether? Answer:

2. Write a multiplication sentence to represent the number of squares shown below.



..... X =

3. Fill in the gaps below:

$$5 \times 10 = \dots$$

$$4 \times \dots = 32$$

$$\dots \times 6 = 36$$

4. Naila writes these maths sentences:

$$6 \times 4 = 4 \times 6$$

$$1 \times 5 = 1$$

$$5 \times 0 = 5$$

Do you agree with Naila? Explain your answer.

Answer:.....
.....

5. Find another two numbers you can multiply which give the same total as **8 × 3**

Answer:

Entry 2.7.1: Recall the number of hours in a day and weeks in a year.

1. How many hours are there in a day?
2. At what time does a new day start?
3. At what time does a day end?
4. How many months are there in a year?
5. How many weeks are there in a year?
6. Which month is the first week of the year in?
7. Which month is the last week of the year in?

Entry 2.8.1: Divide 2-digit by 1-digit numbers

1. Ann who works in a shop, had 64 cans of beans delivered. In each pack there are 4 cans of baked beans.



How many packs were delivered altogether?

Answer:

2. Maya spends the same amount of money on groceries every week. She spent £64 in February (4 weeks).



How much does Maya spend on fruit every week?

$$..... \div =$$

3. Fill in the gaps below:

$$36 \div 9 = \dots$$

$$50 \div 10 = \dots$$

$$63 \div \dots = 7$$

$$64 \div 7 = \dots$$

4. Naila writes these maths sentences:

$$16 \div 4 = 4 \div 16$$

$$5 \div 1 = 1$$

Do you agree with Naila? Explain your answer.

Answer:.....
.....

5. Jo worked out that $42 \div 7 = 6$. How can she check that her answer is right by multiplying?

Answer: \times =

Entry 2.9.1: Approximate by rounding to the nearest 10 and 100 and use this rounded answer to check results

- 1. Fatima received a salary of £76 the 1st week and £92 the 2nd week. How much did she get in total? Check your answer using estimation.
- 2. Jade spent £81 the 1st week, £19 the 2nd week, and £55 the 3rd week. How much did she spend in total? Check your answer using estimation.
- 3. Fill in the gaps in the table below:

Lowest possible whole number	Rounded number	Highest possible whole number
55	60 to the nearest 10	64
_____	30 to the nearest 10	_____

- 4. Jade rounded 30 to the nearest 10. Here is her answer:

30

Is Jade correct? Explain your answer.

.....

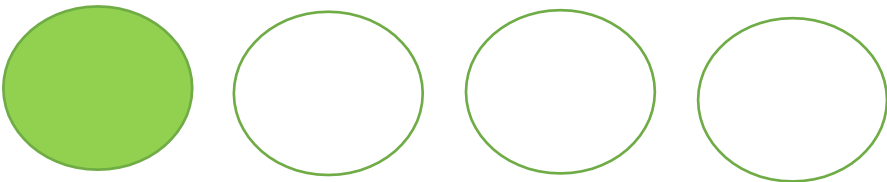
- 5. Round 43 to the nearest 10.
Round 78 to the nearest 10.
Round 4 to the nearest 10.
Round 95 to the nearest 10.

Entry 2.10.1: Recognise simple fractions (halves, quarters and tenths) of whole numbers

1. Colour in 1/10 of each shape below:



2. Jade represents 1/4 like this:



Is she right? Explain your answer.

.....

3. Fill in the gaps below:

Fractions in digits	Fractions in words
	one quarter
1/2	
	one tenth

4. Which of these is bigger:

1/2 of £64 or 1/4 of £100 ?

.....

5. A shoe shop is selling shoes at a reduced price, $\frac{1}{2}$ off. The normal price of a pair of shoes is £30.



How much do the shoes cost when on sale?

.....

6. What is the difference between:

$\frac{1}{4}$ of £30 and $\frac{1}{4}$ off £30

.....

.....

7. Ayla says: ' $\frac{1}{4}$ is bigger than $\frac{1}{2}$ because 4 is bigger than 2.' Is Ayla correct? Explain your answer.

.....

.....

Entry 2.11.1: Read, write and use decimals to one decimal place

1. Represent 0.5 of the bar below.

--	--	--	--	--	--	--	--	--	--

2. The length of a wood plank is 1.6 cm. What is the length of two planks of wood put next to each other?

Would the two pieces put together be long enough to cover a strip of the floor that is 3m long?

3. Fill in the gaps below:

Decimals in digits	Decimals in words
	Zero point six
4.9	

4. What is the same about these two numbers and what is different?

3.7 and 7.3

5. Here are three digit cards:

4

5

7

Make every decimal you can with them. Write them in order, starting with the smallest.

Entry 2.12.1: Calculate money with pence up to one pound and write with the correct symbols

1. Match the coins with their values.



10p

50p

5p

£1

20p

2. Put the values of the coins in order, from the lowest to the highest.

Lowest Highest

3. You go to a shop and buy two packs of biscuits as shown below.



How much do they cost in total?

4. You pay for the biscuits with a £1 coin. How much change do you get?

.....
.....

Alanthinks you would get 52p change. Is he right? Explain your answer.

.....

5. Fill the gaps below. Include the unit.

$$19p + 43p = \dots$$

$$78p + 18p = \dots$$

$$35p + \dots = \text{£}1$$

$$\dots + 72p = \text{£}1$$

$$66p - 34p = \dots$$

$$79p - \dots = 69p$$

$$\text{£}1 - 58p = \dots$$

6. Gurpreet lines up the cost of two different items to add them up. Here is what she has done:

$$\begin{array}{r} 56p \\ + 29p \\ \hline \end{array}$$

Is this correct? Explain your answer.

.....

.....

.....

Entry 2.12.2: Calculate money in pounds of multiple items and write with the correct symbols

1. Match the notes below with their values.



£5



£10



£20

2. Put the values of the notes in order, from the highest to the lowest.

Highest Lowest

3. You go to a shop and buy three items as shown below.



How much would one table and two chairs cost in total?

.....

.....

4. In another shop, the same table and chairs are sold as a set for £80. What is the difference in price?

.....

.....

5. Fill the gaps below. Include the unit.

$$£19 + £43 = \dots\dots$$

$$£35 + \dots\dots = £100$$

$$£66 - £34 = \dots\dots$$

$$£79 - \dots\dots = £69$$

6. Gurpreet lines up the cost of two different items to add them up. Here is what she has done:

$$\begin{array}{r} + £56 \\ £29 \\ \hline \end{array}$$

Is this correct? Explain your answer.

.....

Entry 2.13.1: Read and record time in common date formats, and read time displayed in analogue clocks in hours, half hours, and quarter hours, and understand hours from a 24-hour digital clock

1. Sumra was born on 19.10.1980.

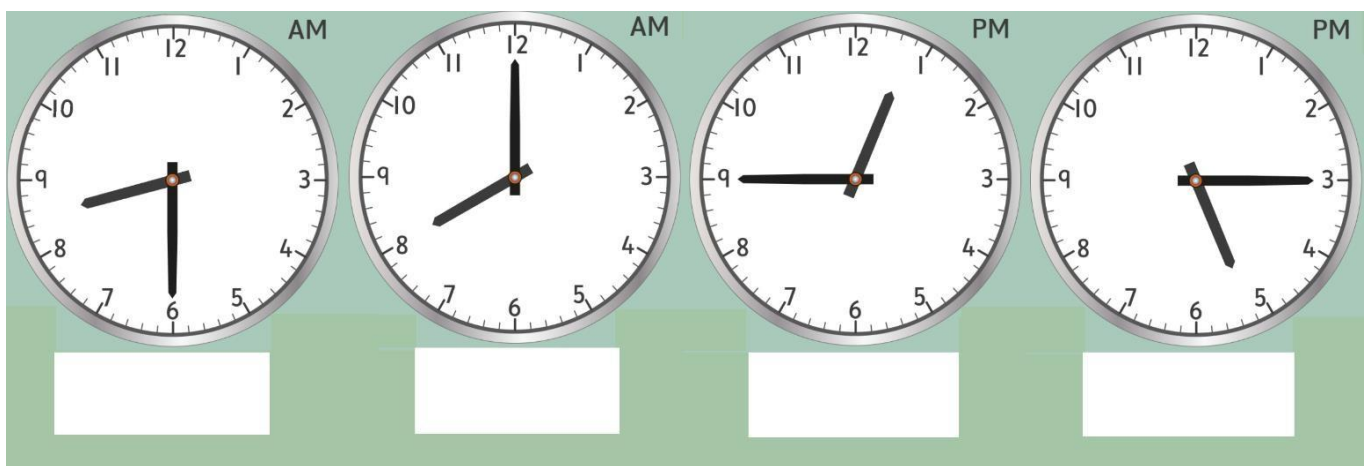
Which month was Sumra born in?

Which year was Sumra born in?

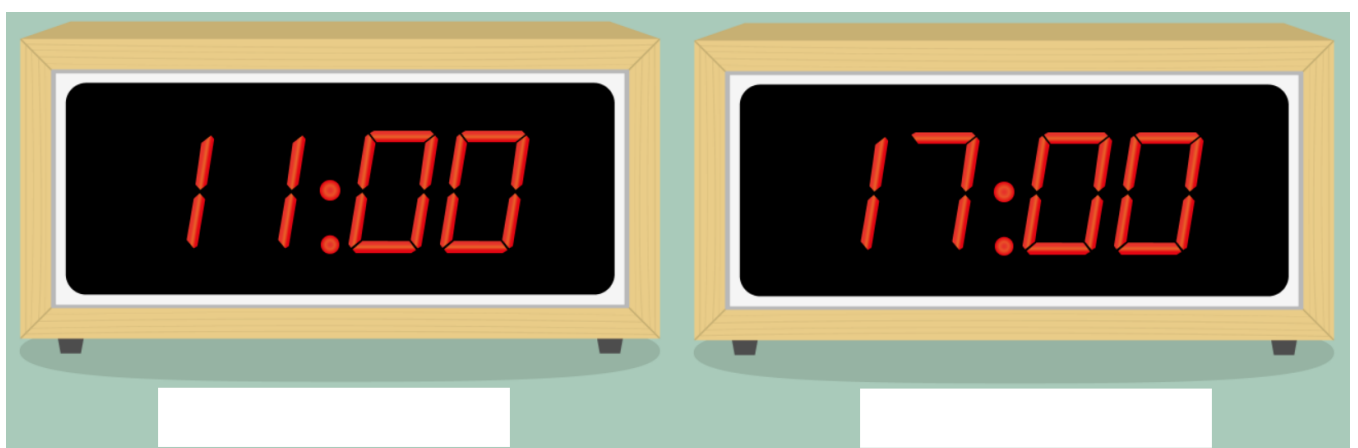
- a. Write today's date in three common date formats.

.....,,

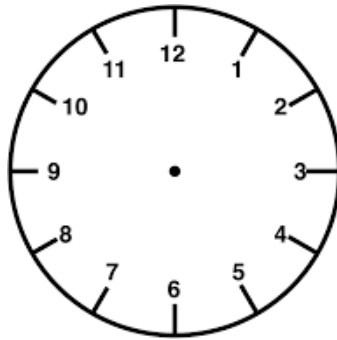
- b. Write underneath each clock face, the time shown.



- c. Write underneath each clock face, the time shown.



d. Show 'quarter past 9' in the clock face below.



e. Zen writes the 2nd April 2020 as : **04.02.2020**

Is he correct? Explain your answer.

.....

f. Zen also thinks that the clock face below shows the time 'quarter to 10'. Is he right? Why?



.....

Entry 2.14.1: Use metric measures of length including millimetres, centimetres, metres and kilometres

1. Fill in the gaps below.

The short form of writing **millimetre** is

The short form of writing.....is **m**.

The short form of writing **kilometre** is

The short form of writing.....is **cm**.

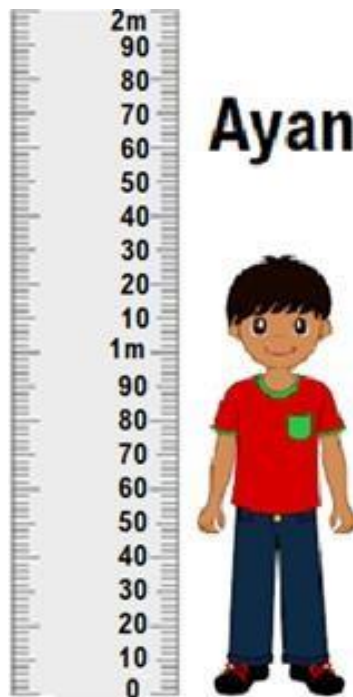
2. Fill in the gaps below.

1 m = cm

1 cm = mm

1 km = m

3. Ayan is measuring his height.



What is Ayan's height in metres and centimetres?

Answer:

What is Ayan's height in centimetres?

Answer:

4. Put these measurements in order, from the smallest to the largest: 1 cm, 1 m, 1 mm and 1 km.

Answer:,,,

5. How long is the blue line below? Include the unit.



Answer:

6. Sumra wants to buy two bookcases, each 46cm long. She wants to put them next to each other in her bedroom. How much space would both bookcases take in total?

Answer:

Sumra has 90cm space available for the two bookcases. She says: 'I can buy the two bookcases and would still have a two cm gap. Is Sumra right? Give a reason for her answer.

Answer:

Entry 2.15.1: Use measures of weight, including grams and kilograms

1. Fill in the gaps below.

The short form of writing **gram** is

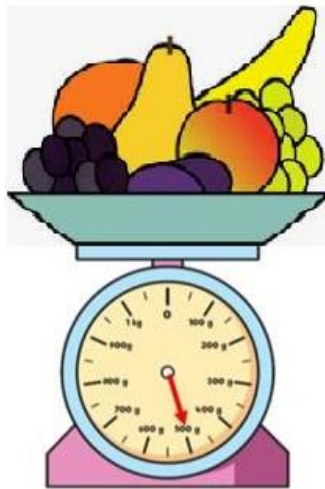
The short form of writing.....is **kg**.

2. Fill in the gaps below.

1 kg = g

1000g = kg

3. The weight of a plate of fruit is shown in the scales below.



What is the weight of this plate of fruit in grams?

Answer:

4. Put these measurements in order, from the smallest to the largest: 1 kg ,
1 g, 500 g

Answer:,,

5. Aaron thinks that 500g is greater than 1kg because 500 is greater than
1. Is he right? Explain your answer.

.....

Entry 2.16.1: Use measures of capacity, including millilitres and litres

1. Fill in the gaps below.

The short form of writing **litre** is

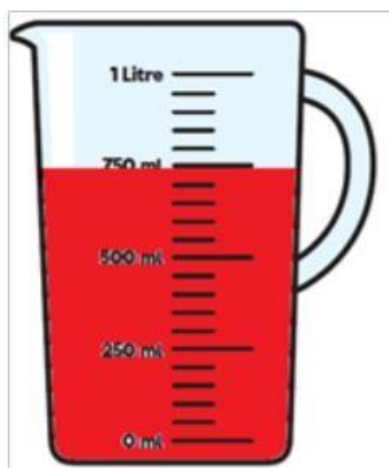
The short form of writing.....is **ml**.

2. Fill in the gaps below.

1l = ml

500ml = l

3. Check the capacity of the jug shown below.



What is the capacity of jug? Include the unit.

Answer:

4. Put these measurements in order, from the smallest to the largest: 1 l ,
300 ml, 0.5 l

Answer:,,

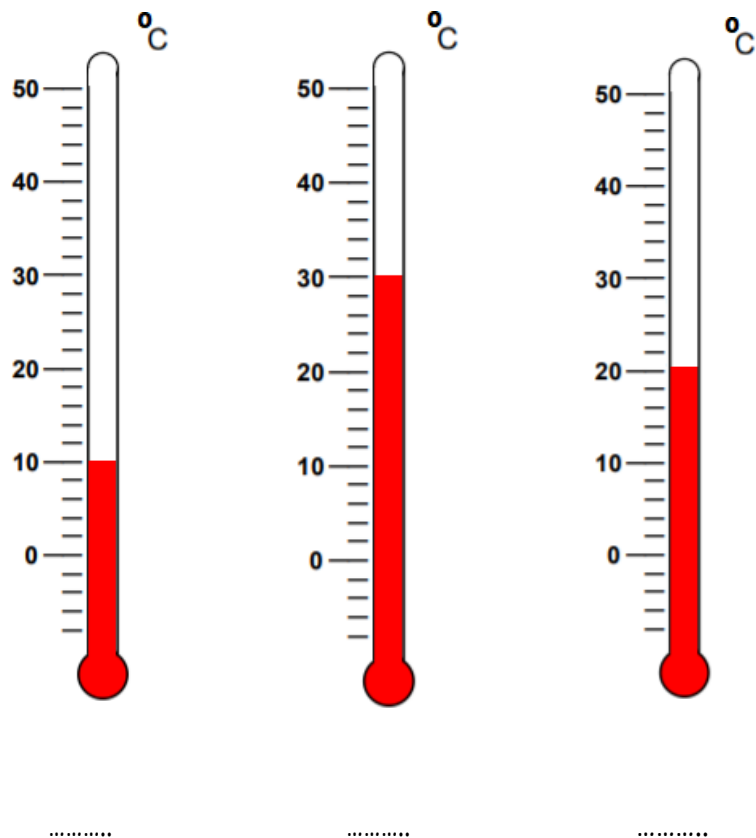
5. Sarathinks that300mlisgreaterthan1l because300isgreaterthan1. Is
she right? Explain your answer

Entry 2.17.1: Read and compare positive temperatures

1. Fill in the gaps below.

The short form of writing **20 degree Celsius** is
Water boils at..... °C.
Water..... at 0°C.

2. Check the temperature shown in the thermometer below.



Put the temperatures above in order, from the highest to the lowest.

Answer:,,

3. The fridge temperature should be 4°C or below. Anna's fridge temperature is 6°C. Is Anna's fridge at the right temperature?

.....

Anna says: 'The difference between the temperature that the fridge has now and the temperature it should have is 1°C.' Do you agree

Entry 2.18.1: Read and use simple scales to the nearest labelled division

1. What is the length of the pencil? Include the unit.

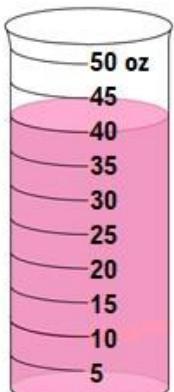
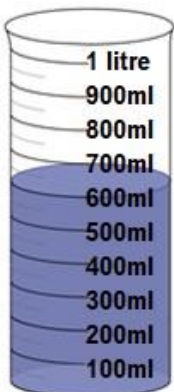


Answer: cm

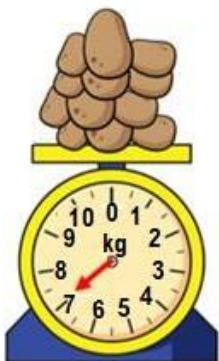
Darren has a pencil case which is 7cm long. Would the pencil above fit in it? Explain your answer.

Answer:

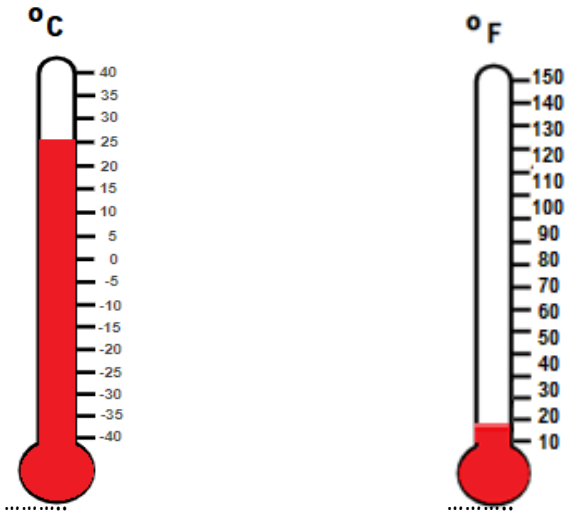
2. How much liquid is there in each of the containers? Include the unit.



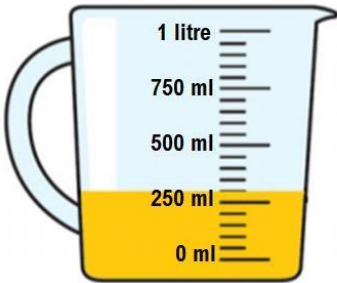
3. How much do each of the items below weigh? Include the unit.



4. Read the temperature shown by each thermometer. Include the unit.



5. How much juice is there in this container?



- a) About 500 ml b) About 250 ml c) About 1 litre d) About 0 ml

6. How much does this bag of potatoes weigh?



Answer:

Anita wants to put the potatoes into containers which hold 3 kg each. How many containers does she need to store all of the potatoes above?

.....

Entry 2.19.1: Recognise the names of simple 2D shapes including pentagons and hexagons

1. Draw each of the shapes named below:

Triangle

Square

Circle

Rectangle

Pentagon

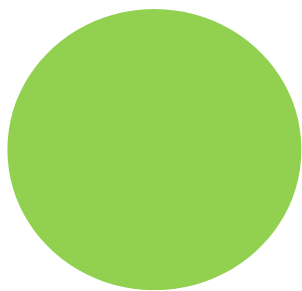
Hexagon

2. Andy thinks that the rug below is in square shape. Is he right? Why?



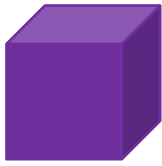
Answer:

3. Magda calls the shape below 'sphere'. Is she right? Why?



Answer:

1. Name the shapes shown below:



.....



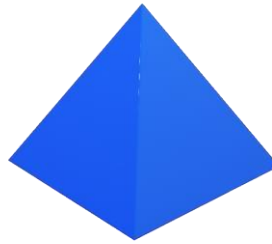
.....



.....



.....



.....

2. Andy thinks that the rug below is in square circle. Is he right? Why?



Answer:

3. Magda thinks the sponge below is in the shape of a cube. Is she right? Why?



Answer:

Entry 2.20.1: Describe the properties of common 2D shapes including numbers of sides, corners and angles

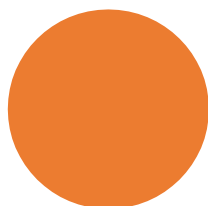
1. Write how many sides, corners and right angles each of the shapes below has.



Sides:

Corners:

Right angles:



Sides:

Corners:

Right angles:



Sides:

Corners:

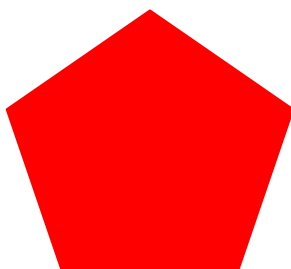
Right angles:



Sides:

Corners:

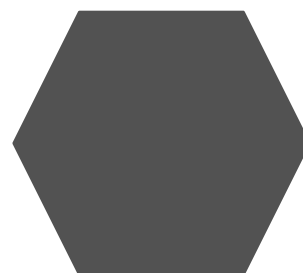
Right angles:



Sides:

Corners:

Right angles:



Sides:

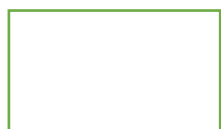
Corners:

Rights angle:

2. Which of the shapes above have 4 sides?

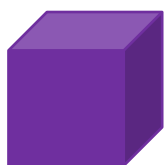
Answer:

3. Tick the shapes below that have more than one right angle?



Entry 2.20.2: Describe the properties of common 3D shapes including numbers of edges, face and base

1. Write how many edges and faces each of the shapes below has. Also, write what shape is the base.



Edges:

Faces:

Base:



Edges:

Faces:

Base:



Edges:

Faces:

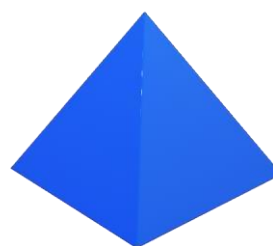
Base:



Edges:

Faces:

Base:



Edges:

Faces:

Base:

2. Andy says that the base of a cube is always a square. Is this true?

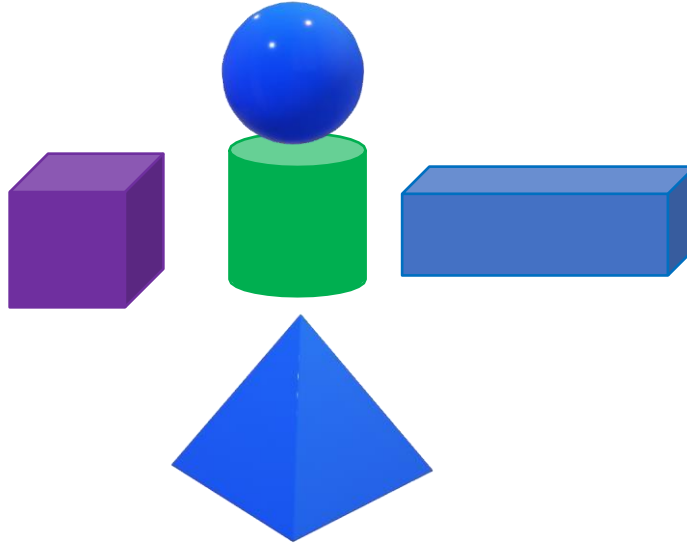
Answer:

3. Magda thinks that a pyramid has 5 edges. Is she right? Why?

Answer:

Entry 2.21.1: Use appropriate positional vocabulary to describe position and direction including between, inside, outside, middle, below, on top, forwards, and backwards

1. Complete the sentences below which include the words **between**, **in the middle**, **below** or **on top**.



The sphere is of the cylinder.

The cylinder is cube and the cuboid.

The pyramid is the cylinder.

The shape is called cylinder.

2. Complete the sentences below using: **inside** or **outside**.



The glasses are the box.

The flowerpot is the box.

3. Complete the sentences below using: **forwards** or **backwards**.



If the car moves....., it will hit the tree.

If the car moves....., it will hit the lamppost.

Entry 2.22.1: Extract information from lists

Answer the questions below about the information given in the menu below.

Pizza Place

MARGHERITA Pizza	£12
Vegetable Pizza	£11
Pepperoni Pizza	£14



1. How much does a vegetable pizza cost?

.....

2. Which of the pizzas is the most expensive?

.....

3. How much more than a margherita pizza does a pepperoni pizza cost?

.....

4. If you paid for a pepperoni pizza with a £20 note, how much change would you be given?

.....

.....

5. Ayla has only £13 in her purse. Which of the pizzas above would she be able to buy?

.....

Entry 2.22.2: Extract information from tables

Answer the questions below about the information given in this table.

Prevent referrals by age in winter 2016-2017	
Age	Number of referrals
Under 15	440
21-30	261
31-40	155
41 and over	153
Unknown	29

1. How many 31 to 40 year olds were referred in winter 2016 - 17?

.....

2. Which of the groups had most of the referrals?

.....

3. How many more 21-30 than 31-40 year olds were referred?

.....

4. Estimate the total number of referrals.

.....

.....




5. Work out the actual total using a calculator. Compare your estimate with the actual answer.

.....

.....

Entry 2.22.3: Extract information from tally charts

Answer the questions below about the information given in this tally chart.

Number of cakes sold in the charity event	
Cake flavours	Tallies
Chocolate cake	
Vanilla cake	
Sponge cake	

1. How many sponge cakes were sold in the charity event?

.....

2. Which cake flavour was the most popular?

.....

3. How many more chocolate cakes than vanilla cakes were sold?

.....

4. How many cakes were sold in total?

.....

.....

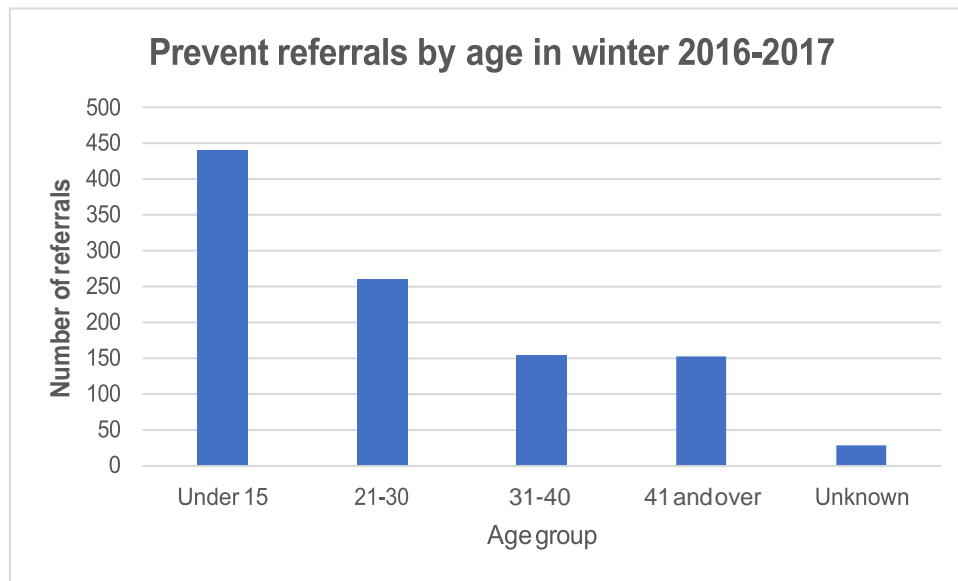
Check your answer to question 4. Show your check.

.....

.....

Entry 2.22.4: Extract information from bar charts

Answer the questions below about the information given in this bar chart.



1. How many 31 to 40 year olds were referred in winter 2016 - 17?

.....

2. Which of the groups had most of the referrals?

.....

3. How many more 21-30 than 31-40 year olds were referred?

.....

4. Estimate the total number of referrals.

.....

.....

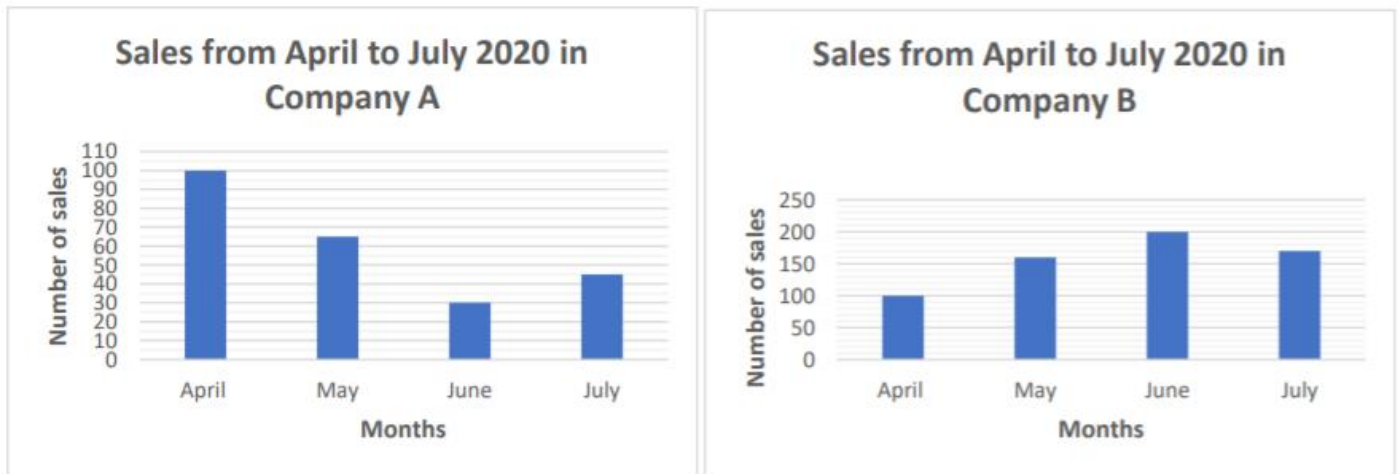
5. Work out the actual total using a calculator. Compare your estimate with the actual answer.

.....

.....

Entry 2.23.1: Make numerical comparisons from bar charts

1. Here is some information about sales in two different small businesses during April, May, June and July in 2020.



a. Which company has had more sales from April to July 2020?

.....

b. Which month did company A have the highest number of sales?

.....

c. Which month did company B have the lowest number of sales?

.....

d. Describe the trend in sales for Company A.

.....

e. Describe the trend in sales for Company B.

.....

2. Company sales in years 2016 to 2020 are shown below. In-store sales are shown in blue and online sales in orange.



Should Company C invest more in online or instore products? Why?

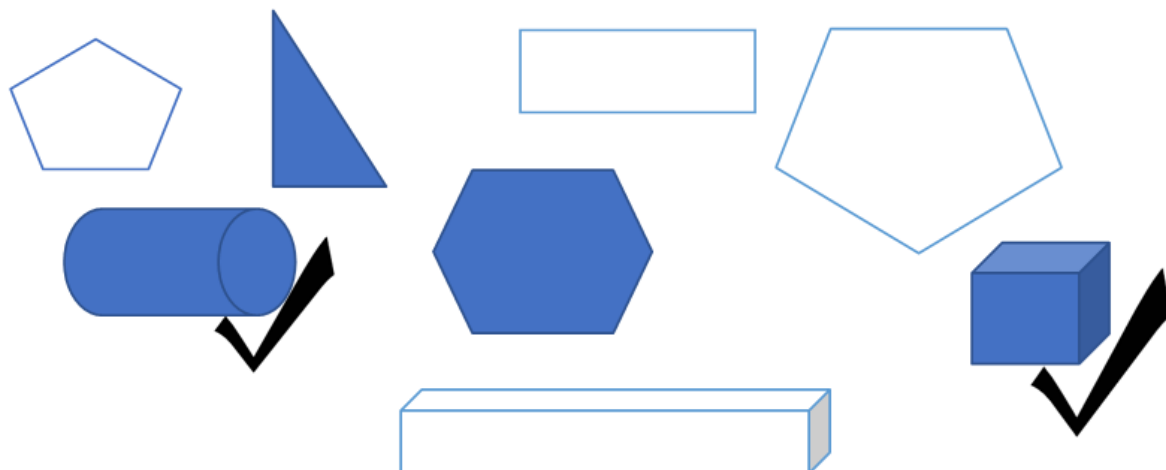
.....

Entry 24.1: Sort and classify objects using two criteria

1. In a shop, you find these clothes which you like. You are looking for a top which costs less than £10. Tick the clothes that meet these criteria.



2. Sunjeong was given these shapes to sort. She ticked two of the shapes below.



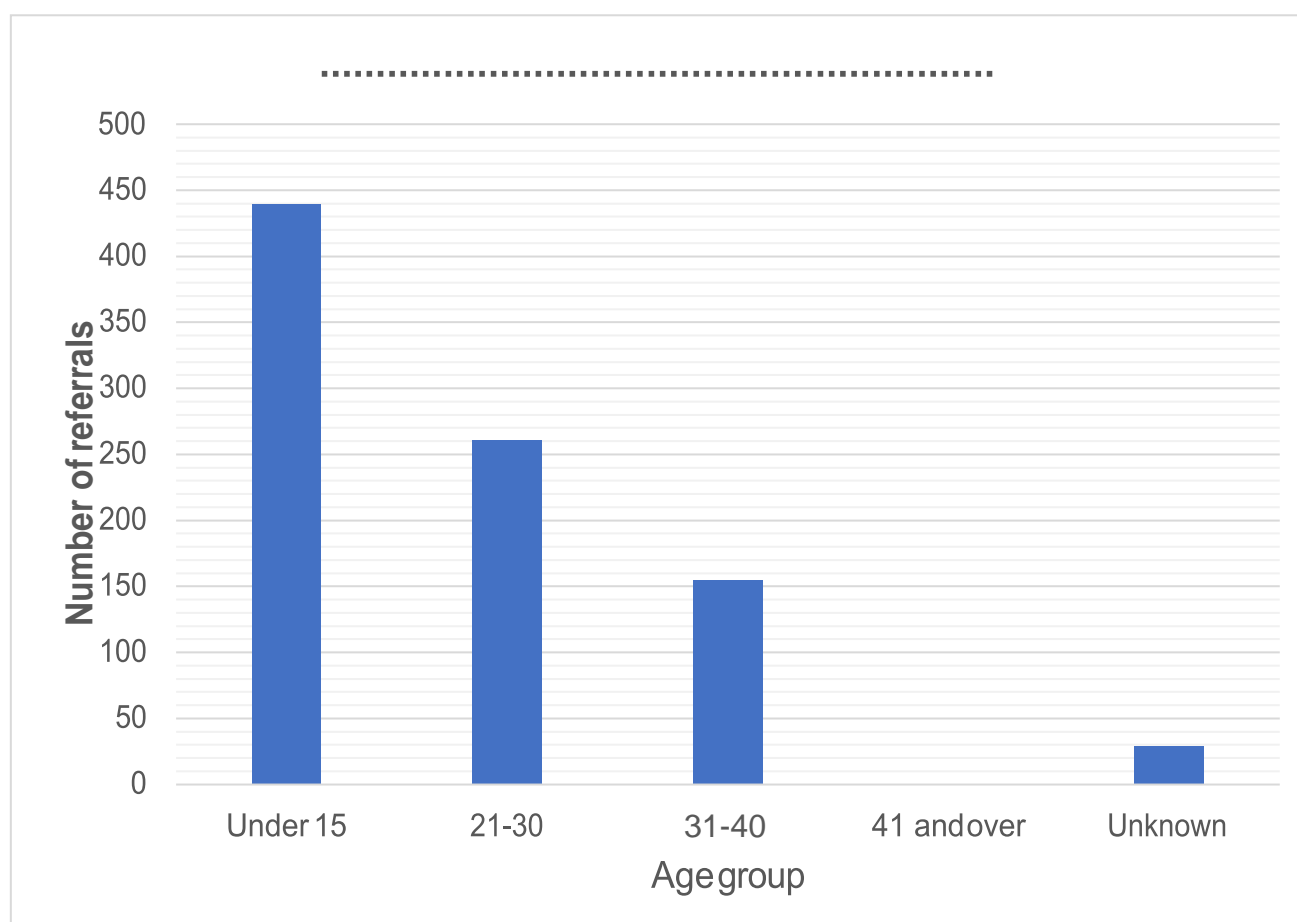
What criteria was she given?

3. Alan was asked to find an odd number greater than 15 and his answer was 16. Is he right? Explain why.

Entry 2.25.1: Take information from one format and represent it in another format

1. Information about Prevent referrals has been represented in a table and bar chart below. Fill in the gaps in the table and the bar chart.

Prevent referrals by age in winter 2016-2017	
Age	Number of referrals (rounded to the nearest 10)
Under 15	440
21-30	260
31-40	160
41 andover	150
Unknown



Answers

E2.1.1 Page 5

- 37
- No, there are 24
- 43, 44, 45, **46**, 47, **48**, **49**, 50
- 70**, **71**, 72, 73, 74, 75
- 86, 52, 25, 16, 13, 0
- No, it should be 18, 19, 20.

E2.1.2 Page 7

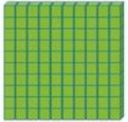
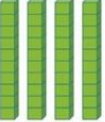

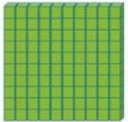

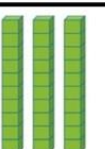

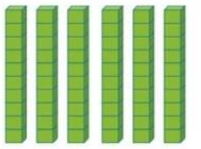
- 49
- 36
- 52, 54, 56, **58**, 60, **62**, **64**, 66
- 30**, **32**, 34, 36, 38, 40
- Yes, because it is an odd number.
- No should be 43, 45, 47, 49 or 42, 44, 46, 48

E2.1.3 Page 9

- 80p
- Yes, 30 learners can sit.
- 30, 40, **50**, 60, **70**, **80**, 90
- 50**, 3. **60**, 70, 80, 90, 100
- No, because 55 is not a ten
- No, 60 is missing.

E2.2.1 and E2.2.2 Page 11

1.

141	Hundreds	Tens	Units
			
108	Hundreds	Tens	Units
			
35	Hundreds	Tens	Units
			
60	Hundreds	Tens	Units
			

2.

17	one hundred
100	sixty eight
111	one hundred and eleven
68	seventeen

3. No, 18 is written as eighteen

4. Fifty five

5.

The Bank Date _____

Pay one hundred and
twenty pounds only £ 120

Signed _____

•000123• 12-3456• 12345678•

E2.2.3 Page 13

1. 180, 108, 81, 18, 81

2.

The Bank Date _____

Pay one hundred and
twenty pounds only £

Signed _____

Cheque No. •000 213• Branch Sort Code 12-3456• Account No. 12345678•

The Bank Date _____

Pay one hundred and two
pounds only £

Signed _____

Cheque No. •000 213• Branch Sort Code 12-3456• Account No. 12345678•

3. No, 91 is bigger than 72, so should be: 18, 72, 91, 103, 105

4. He should take the bus

5. Yes, 80 is bigger than 18.

E2.3.1 Page 15

1.

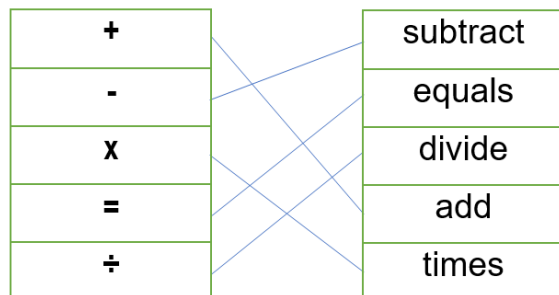


2. 12, 14, 16, 18, 20, 22

4. Yes, after 2 comes 3, after 10 comes 11

E2.4.1 Page 16

1.



2. $6 + 5 = 11$

$2 \times 7 = 14$

$12 \div 4 = 3$

$20 - 8 = 12$

$5 \times 1 = 5$

3. times, multiply, lot of

4. divide, share equally, split into

5. Has used – instead of \div . Should be $5 = 10 \div 2$

6. 30p

E2.5.1 Page 18

1. 95p

2. 83

3. $27 + 15 = 42$

$44 + 26 = 70$

$12 + 23 = 35$

$58 + 8 = 66$

$70 + 9 = 79$

$79 + 14 = 93$

4. I agree with the first sentence because both sides equal 24. The second sentence is wrong because if you no money and then get £35, you end up with £35, not 0.

5. $26 + 45$ (There are many other possible combinations. Use a calculator to check that they adds up to 71)

E3.5.2 Page 20

1. 46p

2. 16

3. $39 - 5 = 34$

$54 - 26 = 28$

$55 - 43 = 12$

$76 - 64 = 12$

$69 - 59 = 10$

$85 - 4 = 81$

3. 37, 39, 41, 43, 45

4. The second sentence is correct but the first one is not. If you have £24 and spend £4, you have £20 left. However, if you have £4 only and spend £24, you are then £20 over draft.

5. $35 - 4$ (There are many other possible combinations. Use a calculator to check the result is 31).

E2.6.1 Page 22

1. 18

2. $11 \times 12 = 132$

3. $5 \times 10 = 50$

$4 \times 8 = 32$

$6 \times 6 = 36$

4. $6 \times 4 = 4 \times 6$ correct

$1 \times 5 = 1$ wrong

$5 \times 0 = 5$ wrong

5. 6 lots of 4 is the same as 4 lots of 6. One £5 note is equal to £5, not 0 pounds. £5 lots of 0 pounds, make 0 pounds.

E2.7.1 Page 24

1. 24

2. 12 midnight

3. 12 midday

4. 12

5. 52

6. January

7. December

E2.8.1 Page 25

1. 16

2. $76 \div 4 = 19$

3. $36 \div 9 = 4$

$50 \div 10 = 5$

$63 \div 9 = 7$

$64 \div 7 = 9 \text{ rem } 1$

4. $16 \div 4 = 4 \div 16$ Wrong

$5 \div 1 = 1$ wrong

16 apples shared by 4 people is not the same as 4 apples shared by 16 people.

If £5 are shared by one person only, they get the whole of the £5.

5. $6 \times 7 = 42$

E2.9.1 Page 27

1. $80 + 90 = 170$

2. $80 + 20 + 60 = 160$

3.

Lowest possible whole number	Rounded number	Highest possible whole number
55	60 to the nearest 10	64
25	30 to the nearest 10	34

4. Yes, she is right, because 30 is closer to 30 than to 40.

5. 40

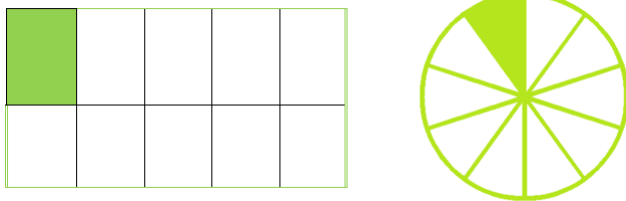
80

0

100

E2.10.1 Page 28

1.



2. Yes, because 1 out of the 4 circles is coloured

3.

Fractions in digits	Fractions in words
1/4	one quarter
1/2	half
1/10	one tenth

4. 1/2 of £64

5. £15.

6. 1/4 of £20 is £5

1/4 of £20 is £5

7. No, she is not right because $\frac{1}{4}$ means shared into 4. $\frac{1}{2}$ means shared into 2. Half a pizza is bigger than a quarter of it.

E2.11.1 Page 30

1.



2. 3.2m

Yes, because 3.2m is longer than 3m.

3.

Decimals in digits	Decimals in words
0.6	Zero point six
4.9	Four point nine

4. They both have 3 and 7 in them but 7.3 is bigger than 3.7.

5. 45.7, 47.5, 54.7, 57.4, 74.5, 75.4 (There are more decimals you can make with these digits at Entry 3).

E2.12.1 Page 31

1.



2. 5p, 10p, 20p, 50p, £1

3. 58p

4. 42p

5. No, that is not right. 58p and 52p makes £1 and 10p

6. 19p+43p=62p

78p+18p=96p

35p+65p=£1

28p+72p=£1

66p-34p=32p

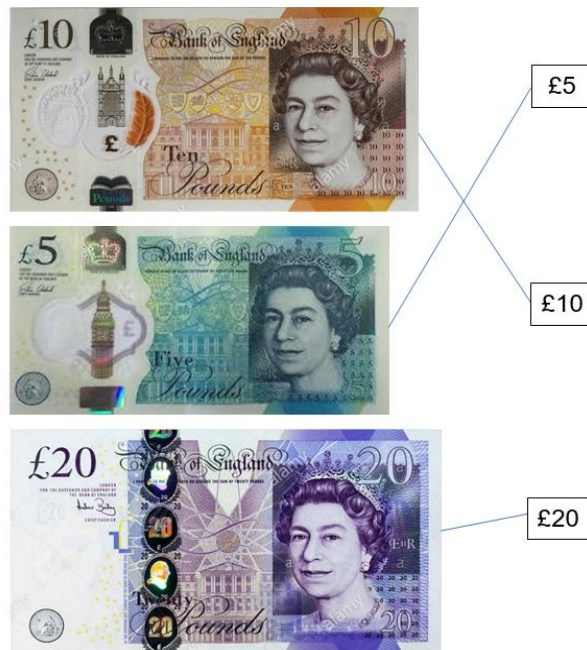
79p-10p=69p

£1 - 58p = 42p

7. No, she has lined the numbers up incorrectly.

E2.12.2 Page 33

1.



2. £20, £10, £5

3. 25 + 25 + 32 = £82

4. 82 - 80 = £2

5. £19+£43=£62

£35+£65 =£100

£66-£34=£32

£79-£10=£69

6. No, she has lined them up incorrectly.

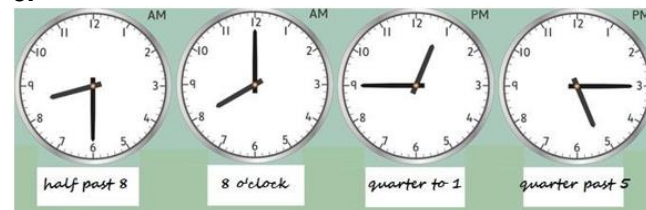
E2.13.1 Page 35

1. October

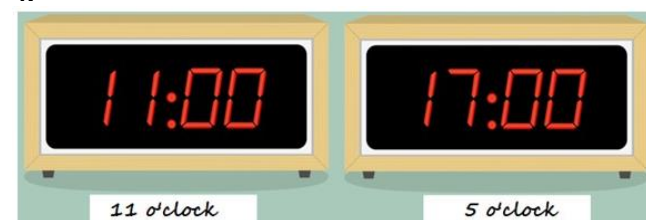
1980

2. 30.08.2020, 30th August 2020, 30.08.20

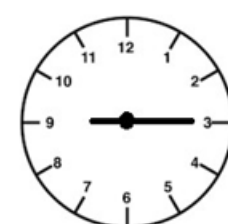
3.



4.



5.



6. No, should be 02.04.2020.

7. No, this clock shows quarter to 11 because the small hand is nearly at 11.

E2.14.1 Page 37

1. The short form of writing **millimeter** is **ml**. The short form of writing **metre** is **m**.

The short form of writing **kilometer** is **km**. The short form of writing **centimeter** is **cm**.

2. 1 m = 100 cm

cm = 10 mm

1 km = 1000 m

3. 1m 30cm 130cm

4. 1mm, 1 cm, 1 m, 1 km.

5. 5cm

6. 92cm

No, this is not right. She would need 2cm more and this is why she is getting confused.

E2.15.1 Page 39

1. The short form of writing **gram** is **g**. The short form of writing **kilogram** is **kg**.

2. 1kg = 1000g 1000g = 1kg

3. 500g

4. 1g, 500g, 1kg

5. No, because 1kg is equal to 1000g. 500g

E2.16.1 Page 40

1. The short form of writing **litre** is **l**.

The short form of writing **millilitre** is **ml**.

2. 1l = 1000ml 500ml = 0.5l

3. 750ml

4. 300ml, 0.5 L, 1 L

5. No, because there are 1000ml in 1 L. 300ml is less than 1000ml.

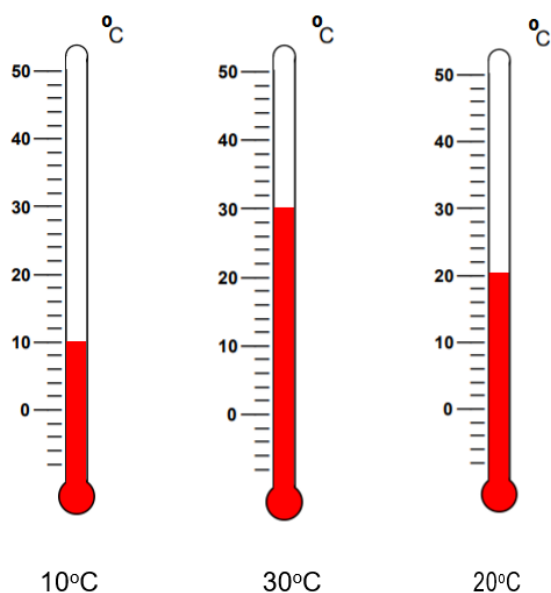
E2.17.1 Page 41

1. The short form of writing **20 degree Celsius** is **20°C**.

Water boils at **100 °C**.

Water **freezes** at **0°C**.

2.



Order from the highest to the lowest: 30°C, 20°C, 10°C

3. No, 6°C is higher than 4°C.

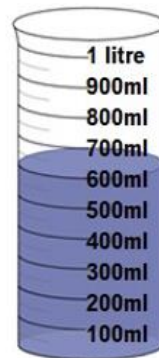
No, because $6 - 4 = 2$, so it is 2°C.

E2.18.1 Page 42

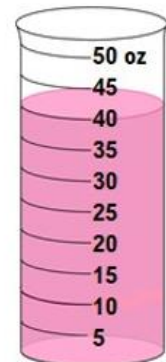
1. 8cm

No, the pen would not fit.

2.



600 ml



40 oz

3.

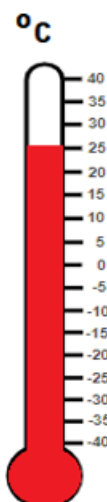


7 kg

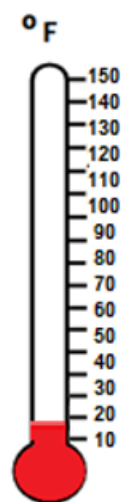


25 lbs

4.



25°C



20°F

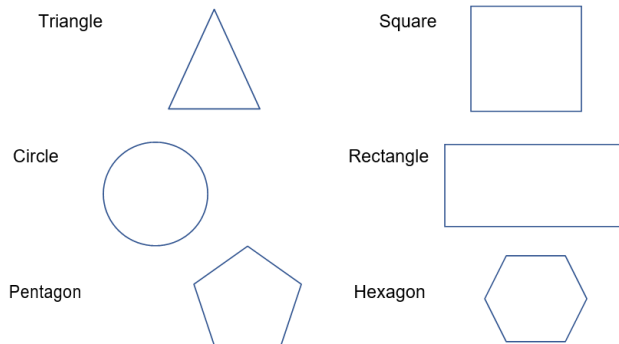
5. b) About 250ml

6. 5kg

2 containers

E2.19.1 Page 44

1.

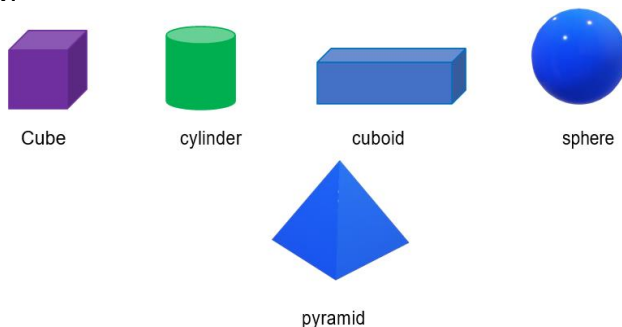


2. No, he is not right because not all sides of the rug are equal.

3. No, she is not right because this is a flat shape, a circle.

E2.19.2 Page 46

1.



2. Sphere

3. No, she is not right because a cube has equal faces.

E2.20.1 Page 47

1.

Sides: 4	Sides: 0	Sides: 3
Corners: 4	Corners: 0	Corners: 3
Right angles: 4	Right angles: 0	Right angles: 0

Sides: 4	Sides: 5	Sides: 6
Corners: 4	Corners: 5	Corners: 6
Right angles: 4	Right angles: 0	Right angles: 0

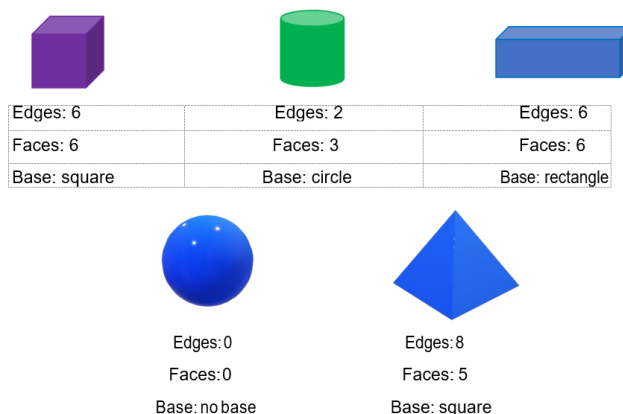
2. Square and rectangle

3.



E2.20.2 Page 48

1.



2. Yes, because all of its faces are squares.

3. No, a square-based pyramid has 8 edges.

E2.21.1. Page 49

1. The sphere is **on top** of the cylinder.

The cylinder is **between** the cube and the cuboid.

The pyramid is **below** the cylinder.

The shape **in the middle** is called cylinder.

2. The glasses are **inside** the box.

The flower pot is **outside** the box.

3. If the car moves **backwards**, it will hit the tree.

If the car moves **forwards**, it will hit the lamppost

E2.22.1 Page 51

1. £11

2. Pepperoni pizza

3. £2

4. £6

5. Margherita or vegetable

E2.22.2 Page 52

1. 150

2. Under 15

3. 110 (100 is fine too)

4. About 1000

5. 1030. The actual number is 30 more than the estimate

E2.22.3 Page 53

1. 5

2. Chocolate cake

3. 4

4. 13

Check: $6 + 2 + 5 = 13$

E2.22.4 Page 54

1. 150

2. Under 15

3. 110 (100 is fine too)

4. About 1000

5. 1030. The actual number is 30 more than the estimate.

E2.23.1 Page 55

- 1.a) Company B
 - b) April
 - c) April
 - d) It kept going down from April to June and then went slightly up in July
 - e) It kept going up from May to June and then went slightly down in July.
2. Company C should invest more in online products because online sales have kept increasing from 2016 to 2020.

E2.24.1 Page 56

1.



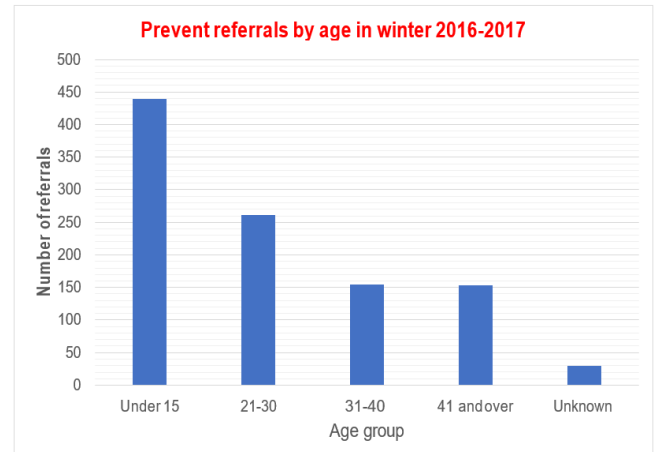
2. 3D shape in blue.
3. No, because 16 is even. 17 is odd and greater than 15.

E2.25.1 Page 57

1.

Prevent referrals by age in winter 2016-2017	
Age	Number of referrals (rounded to the nearest 10)
Under 15	440
21-30	260
31-40	160
41 and over	150
Unknown	30

2.



Feedback on marsmaths.com

'I failed multiple times before and lost hope that I would get my Level 2 maths qualifications this year but your videos helped me and I passed.'

A learner

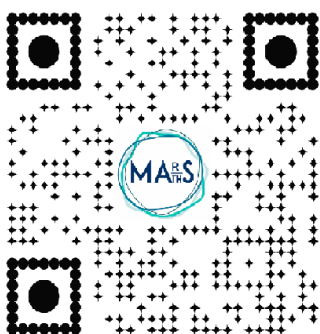
'I and my children love your videos.'

A parent

'I was looking for videos that easily shared to support learners in their revision; your videos are excellent, thanks you.'

A teacher

marsmaths.com



Let us know how you get on
with your maths revision
and exams. When you succeed,
we want to celebrate with you.



Mars Maths



Mars @ MarsMaths.com



Mars_at_marsmaths