1) Fill in the number sentences to partition the values and calculate the total value.

(1000) (1000) (1000) (10) (100) (100) (1)
(1000) (1000) (1000) (1000) (1) (1) (1) (1)

[ ] + [ ] + [ ] + [ ] = [ ]

(1000) (1) (1) (100) (1) (100) (1) (100) (100)
(100) (1) (1) (100) (1000) (1) (1) (1) (100) (100)

[ ] + [ ] + [ ] + [ ] = [ ]

(1000) (1000) (100) (1000) (100) (100) (100) (100) (100)
(100) (100) (100) (100) (10) (10) (100) (10) (100)

[ ] + [ ] + [ ] + [ ] = [ ]

2) Fill in the missing boxes from the number sentences.

[ ] + [ ] + [ ] + [ ] = 9432

5 + [ ] + 20 + [ ] = 5225

6699 = 600 + [ ] + 6000 + [ ]

2022 = [ ] + [ ] + [ ]

4006 = [ ] + [ ]

70 + 7000 = [ ]

30 + 3 + 6000 + 1100 = [ ]

8400 + 87 = [ ]

6006 + 650 = [ ]

[ ] = 2090 + 7909

1000 + 55 + [ ] = 6355

4045 = 2045 + [ ]

3) Calculate the missing cost of the day trips using the holiday list and total cost below.

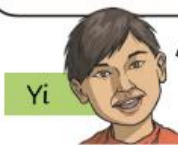Flight = £3501

Accommodation = £125

Day Trips = [£]

Food = £61

1) On the way to the airport, the boarding passes got muddled. Can you match the boarding pass with the correct person? Use the statements below to help solve the problem and record your answers in the table.

Name	Boarding Pass Number
	6553
	3655
	3573
	3511
	3501
	5305
	3315
	5035

Yi: I can't remember my boarding pass number at all!

Samira: My boarding pass number has two digits the same. The digits in the tens and ones place add together to make 8.

Sasha: My boarding pass number has five hundreds and three ones.

Ting: My boarding pass number has a placeholder.

Greg: My boarding pass number has three thousands and one one.

Jaheem: My boarding pass number has an even digit in the thousands place.

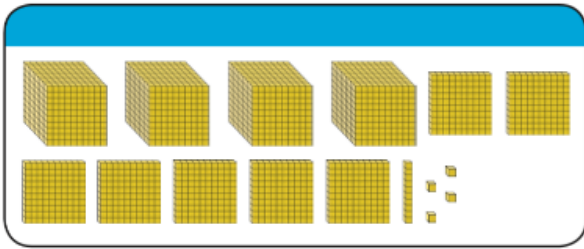Ahmed: There are five hundreds and eleven ones in my boarding pass number.

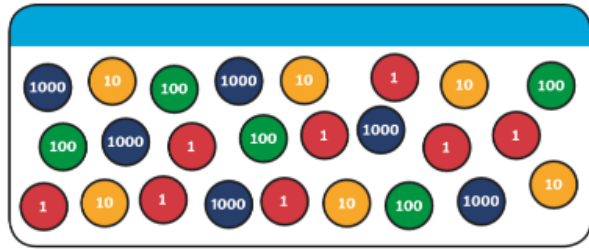Billy: My boarding pass number has thirty-three hundreds.

1) Each ticket number has been shown using a different representation. Look at each representation and work out the number of each ticket. Give your answer in numerals and words.

Numerals: _____

Words: _____

_____

Numerals: _____

Words: _____

_____

three thousands, nine tens and five ones

Th	H	T	O
●●●	●	●●●	
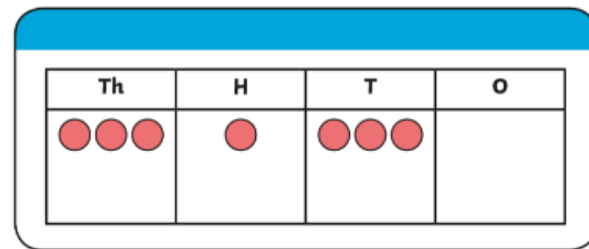
Numerals: _____

Words: _____

Numerals: _____

Words: _____
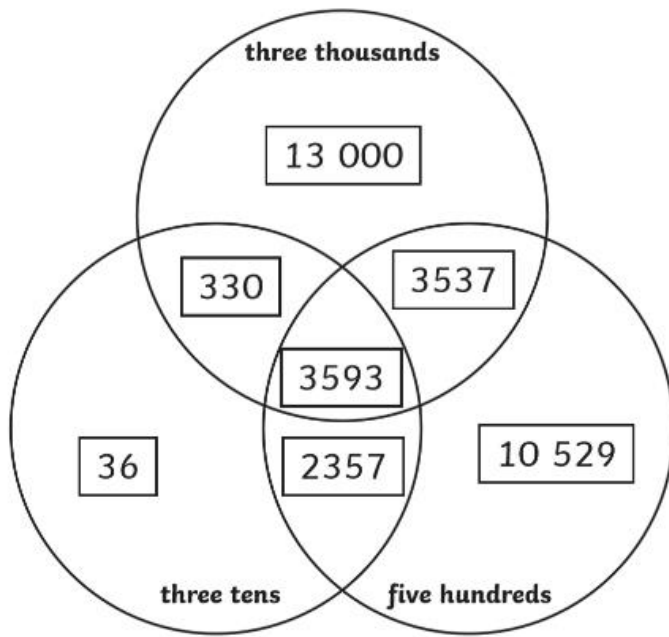
2) Complete the models to identify how many passengers travelled with each airway in one day.

Airway	Model	Population
Twinkl Airways	two hundred □□□□ 1	
Twinkly Flights	□□5□ eight thousand	
Air Twinkl	□□□□	

1) The baggage handlers have been sorting suitcase numbers onto the Venn diagram.

Use your knowledge of place value to check the Venn diagram. Colour in any mistakes and explain your reasoning.

three thousands

13 000

330   3537

3593

36   2357   10 529

three tens   **five hundreds**

_____
_____
_____
_____
_____
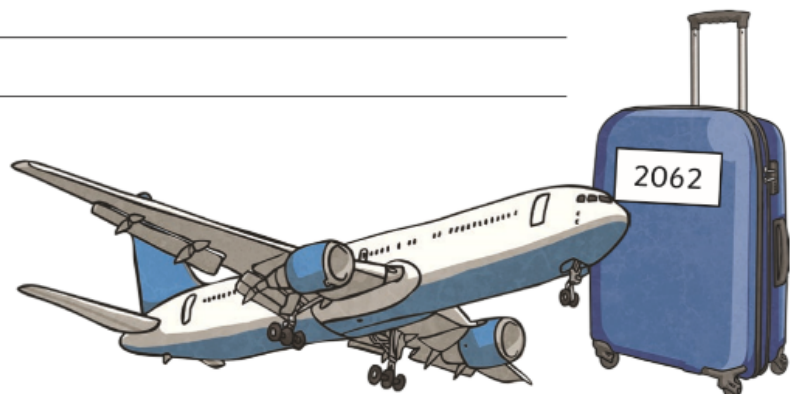_____
_____
_____
_____
_____
_____

2) Read the statements below about suitcase number 2062. Identify if they are true or false and explain your reasoning.

The number has two tens and six ones.

_____
_____

The number has sixty-two ones.

_____
_____

The number has one placeholder in the hundreds place.

_____
_____
_____

2062

Alex
My suitcase number has a placeholder in the tens place.

Ruth
My suitcase number has fifty-one tens and seven ones.

Gloria
My suitcase number has half the value of 8 in the ones place.

Leo
My baggage number's digit sum is 16.

Fred
My suitcase number has no even digits. The ones digit is greater than the hundreds digit.

Isiah
My baggage number has three thousands, no hundreds, five tens and two ones.

Suitcase Number	Owner
3715	
3517	
3317	
3502	
3052	
3504	

The Case of the Missing Jewels

I can round any number to a given value.

During the early hours of the morning, a thief broke into the palace and stole The Queen's most precious jewels, worth approximately three million pounds. Fortunately, the thief left behind some clues. Can you work out the clues to identify the correct suspect?

In a witness statement, they estimated that the thief is about 170cm tall. Each suspect's height has been taken from the existing criminal database. You need to round each suspect's height to the nearest 10cm to eliminate any suspects.

	Pieter Kaldov	Maaria Ritz	Kent Falcone	Ruby Coloor
Height	175cm	166cm	172cm	174cm
Rounded Height to the Nearest 10cm				

According to video footage, it took the thief around 900 seconds to sprint from the tower to the escape vehicle. You need to round each suspect's recorded sprint time to the nearest 100 seconds to eliminate any suspects.

	Pieter Kaldov	Maaria Ritz	Kent Falcone	Ruby Coloor
Sprint Time	535 seconds	972 seconds	861 seconds	893 seconds
Rounded Sprint Time to the Nearest 100 Seconds				

The flooring in the room where the jewels were taken has a weight sensor. It recorded an estimated weight of 57 000 grams entering the room. You need to round each suspect's weight to the nearest 1000 grams to eliminate any suspects.

	Pieter Kaldov	Maaria Ritz	Kent Falcone	Ruby Coloor
Weight	56 593 grams	57 403 grams	56 586 grams	57 726 grams
Rounded Weight to the Nearest 1000 Grams				

The thief is _____.

1   1,034 + 586 =

<div style="border:1px solid black; width:200px; height:80px;"></div>

1 mark

2 $\dfrac{1}{9}$ of 27 =

<div style="border:1px solid black; width:200px; height:80px;"></div>

1 mark

3

<div style="border:1px solid black; width:200px; height:80px;"></div> = 6,000 + 90

1 mark

4 $\dfrac{1}{7}$ of 602 =

<div style="border:1px solid black; width:200px; height:80px;"></div>

1 mark

5

<div style="border:1px solid black; width:200px; height:80px;"></div> = 5,776 − 855

1 mark

6 4,912 − 824 =

1 mark

7 167 × 4 =

1 mark

8 5 × 4 × 7 =

1 mark

9 5,813 + 1,359 =

1 mark

10

[   ] = 8,275 + 82

1 mark

11 9 × 41 =

1 mark

12 $\dfrac{62}{100} - \dfrac{38}{100} =$

|_____|

1 mark

13 707 + 1,818 =

|_____|

1 mark

14 8 × 33 =

|_____|

1 mark

15 180 ÷ 3 =

|_____|

1 mark

16 |_____| − 10 = 298

1 mark

17 120 ÷ 12 =

|_____|

1 mark

18 7,064 − 502 =

$$\boxed{}$$

1 mark

19 7 − 2.25 =

$$\boxed{}$$

1 mark

20 9 − 1.9 =

$$\boxed{}$$

1 mark

Determiner Detectives
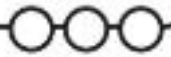
Determiners are words that come before the noun to give the reader information about it, for example, the number, or who they belong to. Identify the determiners in the following sentences.

a) The bridge is very low.

b) Quick! My tea is burning!

c) Their beans on toast looked delicious.

d) There are many museums in London.

e) I need some socks.

Challenge

Can you spot more than one determiner?

a) Several furious members of the gang held a meeting on their motorbikes.

b) I put my bedroom light on because the daylight was fading.

c) She placed a tight hair bobble in to keep her hair tidy.

d) That witch has ten shrieking bats!

e) Five bees were buzzing around the sunflower.

f) Some people think this holiday is boring.

**g)** His boots were brown, just like his eyes.

Sound Waves

Sound is all around us from the tweeting of a bird in a tree to your Mum shouting upstairs, "Hurry up – we're late!" and the latest song from your favourite band.

Different though all these things are, they have one thing in common... They all travel to your ear as sound waves.

Catching the Wave:

Sound waves are vibrations that move the air, in a similar way to how the wind might move the sea to make waves we can see. The waves travel towards your ear as the air particles move the next door particles until they arrive at your ear. How do the sound waves know how to get to your ear? Well, the answer is, they don't. The sound waves travel in lots of different directions from the source of the sound and your ear catches the bit that comes in your direction. Once your ear has 'caught' the sound, it carries on vibrating the tiny bones inside your ear that then turn the vibrations into electric pulses that are sent to the brain for them to be processed.
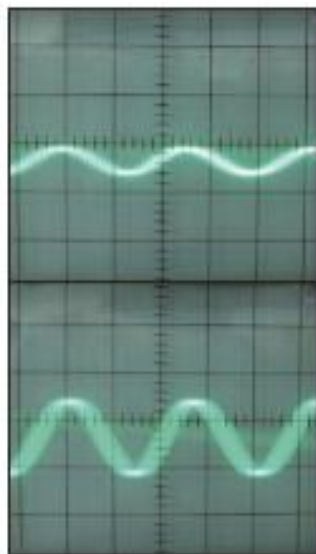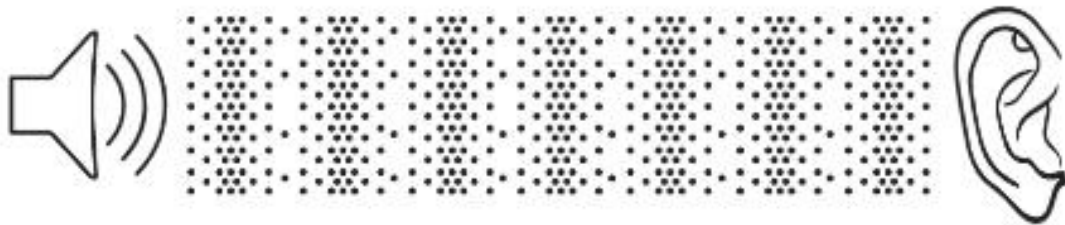
Did you know?

Volume of a jet engine: 150dB

Loudest place to work: Driving a Formula One car (140dB)

Highest audible pitch a human can hear: 20,000Hz

Highest audible pitch a bat can hear: 90,000 Hz

Smallest bone in your body: The stapes/stirrup bone in your ear measuring 2.6 - 3.4mm

Speed of sound: 340 m/s in air but 1484 m/s in water

Pitch:

How fast the source of the sound vibrates is called the frequency of the sound and this is measured in hertz (Hz). The faster the vibration, the higher the frequency and the higher the pitch of the note. A low note will have a slow vibration and a lower frequency. You can make a string on an instrument have a higher frequency by shortening the string or making it tighter.

Volume:

Volume is how loud a sound is, no matter how high or low the pitch of the note. It is measured in decibels (dB). Think of volume being how hard the particles in the air are hitting each other, a bit like how hard you hit a rounders ball. Hit the particles hard and they will be louder and also the sound will travel further just like your rounders ball. So to make a guitar string louder, but the same pitch, you simply pluck it with more force.

Questions About Sound Waves

1. What vibrates inside your ear to send the sound signals into your body?

_____

_____

2. What unit is pitch measured in?

_____

_____

3. What unit is volume measured in?

_____

_____

4. What is another name for the stirrup bone inside your ear?

_____

_____

5. What is the speed of sound in water?

_____

_____

6. Can bats hear higher pitched noises than humans?

_____

_____

7. How would you play a guitar string more quietly?

_____

_____

8. Why has the author used an exclamation mark in the first sentence?

_____

_____

Non-Chronological Report Text Features Key

Text Title: _____

Here are the features of a report text. Use your coloured pens, pencils or highlighters to identify parts of your text which show each feature. For example, you could colour the 'present tense verbs' box in red, then use the **same** colour to underline examples of the present tense in your text.

Topic title covers the whole subject.		Non-chronological reports use **factual language**.
Brief **introduction paragraph** gives who/what/where overview.		**Present tense** verbs (unless it is a historical report, then it would be past tense).
The information is organised into **paragraphs**.		**Technical language** may be explained in a glossary.
Each category has a **sub-heading**.		**Third person** makes it impersonal.
Some information may be in **fact boxes or bullet-point** lists.		Non-chronological reports have a **formal tone.**
Extra details support the main points.		**General language,** not particular examples.