Name:.....

Tutor:.....

SKEGNESS ACADEMY

Exam Preparation Homework Booklet 2025

May Half Term Ultimate Revision Edition

Student Instructions

- Set aside plenty of time to complete this booklet
- Let other people at home know so that they can support you
- Complete the tasks for all subjects you take in Yr11
- Research answers if necessary using books/internet
- Review your effort and progress in the student review section
- Remember to return my booklet to school by the deadline

Parent Information

- Try and provide a quiet place for your child to complete this booklet
- Advise them to avoid distractions such as social media & gaming
- Encourage them to complete as much work as possible
- Monitor them and ensure they take regular rest breaks and are not stressed
- Support them with tasks if they are struggling to complete them
- Review their effort, progress and successes by completing the review section
- Ensure that they return this booklet to school by the deadline

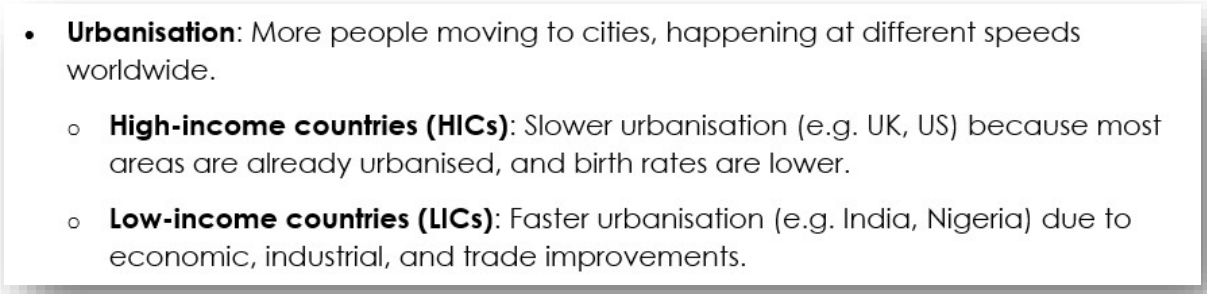
Please sign the most appropriate box	**Successful** All sections completed to a high standard and student gained significant knowledge	**Knowledgeable** All sections completed to a good standard and student has gained knowledge in all subjects	**Aspiring** All subjects attempted and student has worked as hard as possible to gain knowledge in most subjects	**Acquiring** Most subjects attempted and student has improved their knowledge in some subjects
Student				
Parent				
Form Tutor				

How to Revise?

Your teacher has assigned a specific topic for you to revise in preparation for your exams. We recommend using the **Look/Cover/Write/Check** method for revision. Here is how it works:

Step 1: Look

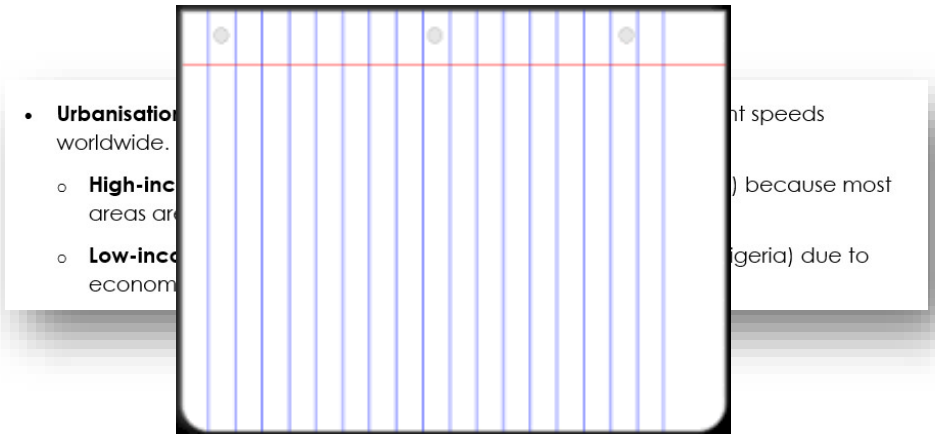
- Look at the first bullet points or sentences
- Read through it three to five times



- **Urbanisation**: More people moving to cities, happening at different speeds worldwide.
  - **High-income countries (HICs)**: Slower urbanisation (e.g. UK, US) because most areas are already urbanised, and birth rates are lower.
  - **Low-income countries (LICs)**: Faster urbanisation (e.g. India, Nigeria) due to economic, industrial, and trade improvements.

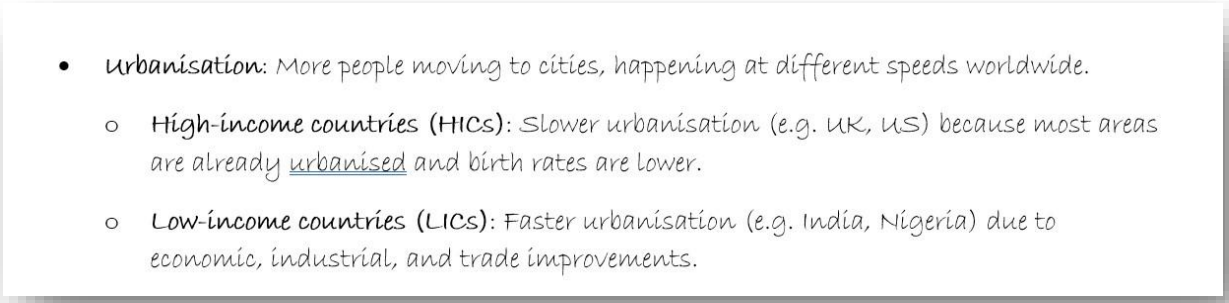
Step 2: Cover

- Cover it with a piece of paper.



Step 3: Write

- Write it out as it was in your booklet



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Step 4: Check

- Remove the piece of paper and grab your red pen
- Check what you wrote and tick if correct
- Make corrections in red pen to match your booklet
- Repeat
- Once you have it correct, move on to the next chunk of information

In addition, your teacher has given you 10 questions to assess your knowledge and understanding after you have reviewed the entire topic.

We suggest doing it in the following way:

1. Cover up the answers, answer all the questions on a sheet of paper.
2. Check your answers.
3. Repeat if necessary.
4. Once you have answered all questions correctly, move on to the next subject.

Subject Information English

English Language Paper Two 1 hour 45 minutes

Top Tips for Approaching the reading section:

- Read the context boxes
- Read the questions
- Annotate the inserts as you read –thinking about the writer's point of view
- Timings
- Complete the paper in order.

Reading

Source A

George Orwell was a young British writer who started work in 1922 as a policeman in Burma. At that time, Burma was part of the British Empire. The extract is from his essay Shooting an Elephant, which he wrote in 1936.

Read the context box – what is it about?
WHen was it written?
What do you know about the context?
Do you now the writer?

Early one morning, the sub-inspector at another police station the other end of town rang me up on the phone and said that an elephant was ravaging the bazaar. Would I please come and do something about it? I did not know what I could do, but I wanted to see what was happening and I started out. I took my rifle, much too small to kill an elephant, but I thought the noise might be useful.

This is about elephants. It is called Shooting for Elephants – what does this suggest?

It was not of course a wild elephant, but a tame one. It had been chained up, but on the previous night it had broken its chain and escaped. In the morning the elephant had suddenly reappeared in the town. It had already destroyed somebody's bamboo hut, killed a cow and raided some fruit-stalls and devoured the stock. Some Burmese men arrived and told us that the elephant was in the paddy fields below, only a few hundred yards away. I sent an orderly to borrow an elephant rifle. The orderly came back in a few minutes with a rifle and five cartridges.

Annotate the paragraphs - what is the writer feeling?

As I started forward practically the whole population of the area flocked out of their houses and followed me. They had seen the rifle and were all shouting excitedly that I was going to shoot the elephant. It made me vaguely uneasy. I had no intention of shooting the elephant. I marched down the hill, looking and feeling a fool, with the rifle over my shoulder and an ever-growing army of people jostling at my heels.
At the bottom, the elephant was standing eighty yards from the road. He took not the slightest notice of the crowd's approach. He was tearing up bunches of grass, beating them against his knees to clean them and stuffing them into his mouth.

In this paragraph he is called to attend a rampaging elephant. He is young, and takes a gun to make a noise with – how does he feel?

As soon as I saw the elephant I knew with perfect certainty that I ought not to shoot him. It is a serious matter to shoot a working elephant – it is comparable to destroying a huge and costly piece of machinery. And at that distance, peacefully eating, the elephant looked no more dangerous than a cow. I decided that I would watch him for a while to make sure he did not turn savage again, and then go home.

Source B

The extract below is from the book Wild Animals in Captivity, published in 1898 by Abraham Bartlett, Head Keeper at the Zoological Society Gardens (now London Zoo).

The first elephant that ever came under my charge was the celebrated Jumbo. The African elephant was received at the Zoological Gardens in exchange for other animals on June 26, 1863.

At that date Jumbo was about 4 ft high and he was in filthy and miserable condition. I handed him over to keeper Matthew Scott. The first thing we did was to remove the filth and dirt from his skin. This was a task requiring a great deal of labour and patience. The poor beast's feet had grown out of shape, but by scraping and rasping, together with a supply of good food, his condition rapidly improved.

However, he soon began to play some very lively tricks, so much so that we found it necessary to put a stop to his games, and this we did in a very speedy and effectual manner. Scott and myself, holding him by each ear, gave him a good thrashing. He quickly recognised that he was mastered by lying down and uttering a cry of submission.

We coaxed him and fed him with a few tempting treats, and after this time he appeared to recognise that we were his best friends, and he continued on the best of terms with both of us until the year before he was sold. He was at that time about twenty-one years old and had gained the enormous size of 11 ft in height. All male elephants at this age become troublesome and dangerous. Jumbo was no exception to this rule.

Question 1:

Read again the first part of Source A from lines 1 to 5.
Choose four statements below which are true.
[4 marks]

A Orwell receives the phone call in the afternoon.
B There is only one police station in the town.
C There are reports of an elephant out of control.
D The sub-inspector expects Orwell to sort out the problem.
E Orwell is confident he can sort out the problem with the elephant.
F Orwell is curious about the elephant.
G Orwell takes his rifle to kill the elephant.
H It takes a very powerful weapon to kill an elephant.

Question 2:

You need to refer to Source A and Source B for this question.
Both sources describe how the elephants behave. Use details from both sources to write a summary of what you understand about the similar behaviour of the elephants.

[8 marks]

Question 3:

You now need to refer only to Source A from lines 26 to 35 (in bold). How does the writer use language to describe the crowd of people?

[12 marks]

Question 4:

For this question, you need to refer to the whole of Source A, together with the whole of Source B.
Compare how the writers convey their different attitudes to the elephants. In your answer, you could:

- compare their different attitudes to elephants
- compare the methods the writers use to convey their attitudes
- support your response with references to both texts.

[
16 marks]

Reading Section – timings

15 minutes reading

Q1: 5 minutes
Q2: 10 minutes
Q3: 10 minutes
Q4: 20 minutes

This adds up to an hour.
By following the reading rules you will have planned your answers as you go along. This will save time.

Extra time? Take longer with your reading and it will support your answers.

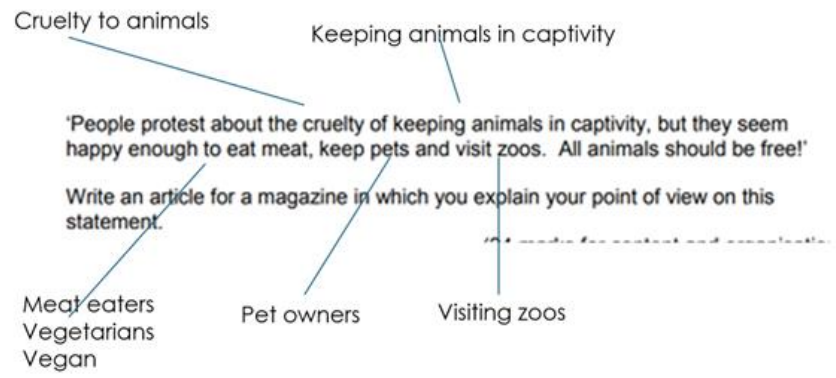
WRITING SECTION

You will now have 45 minutes left.

Spend 10 minutes planning.
30 minutes writing.
5 minutes checking your work for errors and use of SPaG.

Question 5:

'People protest about the cruelty of keeping animals in captivity, but they seem happy enough to eat meat, keep pets and visit zoos. All animals should be free!'
Write an article for a magazine in which you explain your point of view on this statement.
(24 marks for content and organisation
16 marks for technical accuracy)
[40 marks]



Annotate the question to think about the focus of your response.

Notice the from – you are going to write an article.
You need to explain your ideas.

This is an example of another student's work.

Animal Anger!

'People protest about the cruelty of keeping animals in captivity, but they seem happy enough to eat meat, keep pets and visit zoos. All animals should be free!'.

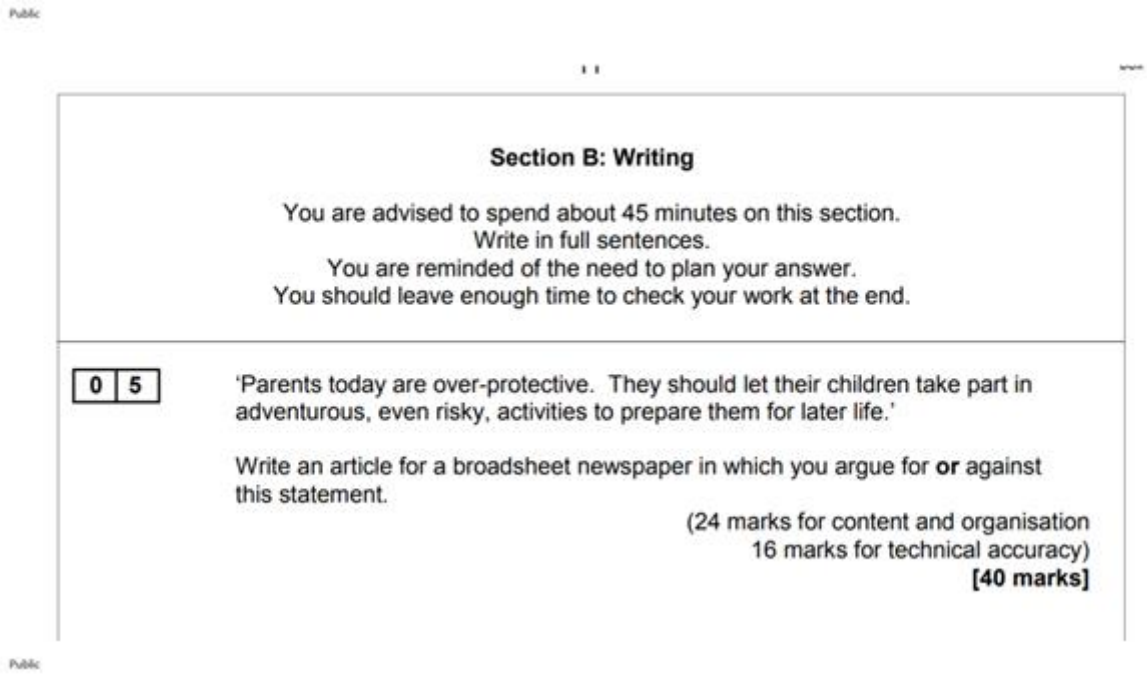
This is ridiculous! The first reason being that its a lot different having a pet then keeping a big animal in captivity. The pets most commonly kept (cats and dogs) have evolved over time to become domesticated, therefor meaning they're more accustomed to being pets. How would you like to be took away from your family and 'be free' in an unknown place with who knows what lurking around.

Secondly the meat argument. You can care about animals and still eat meat. Want to know why? Because wether you eat that meat or not that animal is still already dead if its in a store/restaurant. Sadly unless everyone in the world became vegetarian theres no way to stop the meat industry from killing those animals so for now you can eat guilt free. Lastly, visiting zoos. Now I will say that some animals in some zoos have no reason to be there. For the most part however zoos house animals that would otherwise die/have nowhere to live, as a lot of exotic animals are endangered and in a lot of cases zoos hold the last of a species kind in them. Zoos are also places that can house animals that couldn't survive in the wild therefor by visiting that zoo and giving it money you are supporting the lives of the animals, not worsening them.

Overall it's a nice statement but an unrealistic one none the less. With no way just one person would stop anything by not eating meat and the countless animals that depending on being a pet or living in a zoo. I have to disagree with the statement.

It is not a perfect example. However, it has a coherent message and it is well structured. Therefore, it was given 15 + 11 marks. This would be 26/40.

Here is another question for you to practise with:



Section B: Writing

You are advised to spend about 45 minutes on this section.
Write in full sentences.
You are reminded of the need to plan your answer.
You should leave enough time to check your work at the end.

0 5 'Parents today are over-protective. They should let their children take part in adventurous, even risky, activities to prepare them for later life.'

Write an article for a broadsheet newspaper in which you argue for **or** against this statement.

(24 marks for content and organisation
16 marks for technical accuracy)
[40 marks]

Subject Information English

Subject Information English

Foundation Maths

Corbett maths

www.corbettmaths.com/contents

This is a list of topics that have not been tested in Paper 1 or usually are more prominent.
If I were revising for Papers 2 & 3, these are the topics that I would revise first, starting with the starred topics.
As topics from Paper 1 may still appear on Papers 2 & 3, make sure that you spend time revising those too.

Ultimate revision video

- Angle Facts - Video 35, 30, 34, 39
- Types of Angle - Video 38
- Angles in Parallel Lines - Video 25
- Angles in a Triangle - Video 37
- Angles in a Quadrilateral - Video 33
- Angles in Polygons - Video 32
- Perimeter - Video 241
- Area of Rectangles/Triangles - Videos 45, 49
- Area of a Trapezium - Video 48
- Units - Videos 347, 349
- Sensible Estimates - Video 285
- Line Symmetry - Video 316
- Rotational Symmetry - Video 317
- Constructions - Videos 72, 78, 83
- Loci - Videos 75, 76, 77
- Faces, Edges, Vertices - Videos 5, 3
- Nets - Video 4
- Views and Elevations - Video 354
- Time Calculations - Video 322
- Timetables - Video 320
- Distance Charts - Video 318
- Speed, Distance, Time - Video 299
- Travel Graphs - Video 171
- Density - Video 384
- Pressure - Video 385
- Translations - Video 325, 326
- Reflections - Videos 272, 273
- Rotations - Video 275
- Enlargements - Videos 104, 105, 107
- Parts of the Circle - Video 61
- Area of a Circle - Video 59, 47
- Area of a Sector - Video 46
- Volume of a Cylinder - Video 357
- Pythagoras - Video 257
- Trigonometry - Videos 329, 330, 331
- Exact Trig Values - Video 341
- Similar Shapes (sides) - Video 292
- Congruent Triangles - Video 67
- Volume of a Cuboid/Prism - Video 355, 356
- Volume of a Sphere/Cone - Videos 359, 361
- Surface Area - Video 310
- Surface area of Sphere/Cone - Videos 313, 314

- Four Operations - Video 199, 200, 98, 6, 304
- Rounding - Video 276, 277a, 277b, 278, 280
- Estimation - Video 215
- Order of Operations - Video 211
- Ordering Decimals - Video 95
- Arithmetic with Decimals - Videos 90, 91, 92, 93, 94
- Multiples - Video 220
- Prime Numbers - Video 225
- Square Numbers and Square Roots - Videos 226, 228
- Cube Roots - Video 214
- LCM/HCF - Videos 218, 219, 224
- Indices - Videos 172, 174
- Negative Indices - Video 175
- Fractions of Amounts - Video 137
- Adding Fractions - Video 133
- Multiplying Fractions - Video 142
- Dividing Fractions - Video 134
- Reciprocals - Video 145
- Fractions, Decimals, Percentages - Videos 121 to 129
- Expressing as Fraction or % - Videos 136, 237
- Percentages of Amounts - Videos 234, 235, 238
- Percentage Change - Video 233
- Compound Interest - Video 236
- Reverse Percentages - Video 240
- Ratio - Videos 269, 270, 271
- Currency - Video 214a
- Recipes - Video 256
- Negative Numbers - Videos 205-209
- Place Value - Video 222, 222a
- Error Intervals - Video 377
- Money - Video 400
- Best Buys - Video 210

- Tally Charts - Video 321
- Two-way Tables - Video 319
- Pictograms - Videos 161, 162
- Bar Charts - Videos 147, 148
- Line Graphs - Video 160
- Probability - Videos 245, 246, 248
- Relative Frequency - Video 248
- Listing Outcomes - Video 253
- Mode: Frequency Table - Video 56a
- Median: Frequency Table - Video 51
- Combined Mean - Video 53a
- Estimated Mean - Video 55
- Venn Diagrams - Video 380
- Tree Diagrams - Video 252
- Reading Tables - Video 387

- Function Machine - Video 386
- Writing Expressions - Video 16
- Collecting Like Terms - Video 9
- Laws of Indices - Video 174
- Sequences - Videos 286, 287, 290, 287a
- Geometric Progressions - Video 375
- The nth Term - Video 288
- Expanding Brackets - Videos 13, 14
- Factorising - Video 117
- Factorising Quadratics - Videos 118, 120
- Solving Equations - Video 110, 113, 266
- Forming Equations - Videos 114, 115
- Solving inequalities - Videos 177, 178, 179
- Conversion Graphs - Video 151
- Drawing Linear Graphs - Video 186
- y = mx + c - Video 191
- Gradient - Video 189
- Real Life Graphs - Video 171a
- Changing the Subject - Video 7
- Simultaneous Equations - Videos 295, 297
- Quadratic Graphs - Video 264
- Cubic Graphs - Video 344

Expressions, Equations and Inequalities (Foundation)

Expanding single brackets

Remove the brackets by multiplying:

a) $3(x + 2)$

b) $5(4 - x)$

c) $-2(3x - 5)$

d) $x(x - 4)$

Linear equations one unknown

Solve for x:

a) $17 - x = 9$

b) $4x = 24$

c) $3x + 7 = 22$

d) $19 - 2x = 26$

e) $2x + 5 = 1 + x$

f) $5x + 2 = 16 - x$

g) $18 - 7x = 31 - 9x$

Simultaneous equations

Find values for x and y that satisfy:

a) $x + y = 21$
$x - y = 9$

b) $2x + y = 14$
$x - y = -5$

c) $4x + 3y = 23$
$3x - 2y = -4$

Substitution

Let $a = 4$, $b = -1$, $c = 5$, $d = -2$

Evaluate:

a) $a + b + c$

b) $d - 3b$

c) b^2

d) $ad - bc$

e) $\frac{abc}{d}$

Product of binomials

Expand and simplify:

a) $(x + 3)(x + 5)$

b) $(x - 4)(x - 1)$

c) $(2x + 1)(3x - 1)$

d) $(3x - 2)^2$

e) $(x + 3)(x - 1)(x + 2)$

Simplifying expressions

Simplify:

a) $x + x + x + x$

b) $5y - 8y + 4y$

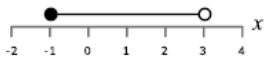
c) $2a \times 3b \times 4c$

d) $28xy \div 4y$

e) $4a + 3b - 5a$

Inequalities

a) Write the inequality that is described by the number line:



b) Find the set of integers satisfying the inequality:

$-3 \leq n < 2$

c) Solve the inequality:

$3x - 4 > 11$

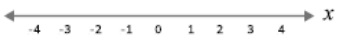
d) Solve the inequality:

$1 < 2x - 5 < 11$

e) Solve the inequality:

$2x + 7 > 5$

Now represent your solution on the number line:



Changing the subject

a) Given $v = u + at$ make a the subject

b) Given $E = mgh$ make h the subject.

c) Given $P = I^2R$ make I the subject.

Factorising quadratics

Factorise as a product of binomials:

a) $x^2 - 4x - 5$

b) $x^2 - 7x + 12$

c) $x^2 - 25$

Solving quadratic equations

Solve for x:

a) $x^2 - 8x + 7 = 0$

b) $x^2 + x - 6 = 0$

Factorising

Fully factorise:

a) $4x + 20$

b) $6x - 9$

c) $24 - 14y$

d) $4ab + 6ac$

Powers

Evaluate:

a) 7^2

b) 1^{12}

c) 2^5

d) 13^0

e) 3^4

Roots

Work out the value of:

a) $\sqrt{25}$

b) $\sqrt[3]{8}$

c) $\sqrt[3]{-27}$

d) $\sqrt[4]{10000}$

e) $\sqrt{\frac{1}{16}}$

Working with indices

Indices and products

a) $a^3 \times a^2$

b) $t^5 \times t \times t^3$

c) $g^5 \times g^{-2}$

d) $h \times h^{-4} \times h^3$

e) $f^{-4} \times d^3$

Indices and division

a) $p \div p^2$

b) $w^{-3} \div w^{-5}$

c) $u^2 \div u^3$

d) $q^2 \div q^{-8}$

e) $3 \div r^{-2}$

Indices and brackets

a) $(r^3)^2$

b) $(x^4)^{-3}$

c) $(3j^2)^3$

d) $5(h^2)^{-4}$

Negative indices

Write as a fraction in simplest form:

a) 5^{-1}

b) 3^{-2}

c) 2^{-4}

Write in the form x^{-n}:

d) $\frac{1}{7}$

e) $\frac{1}{1000}$ $(n \neq 1)$

f) $\frac{1}{25}$ $(n \neq 1)$

Indices and algebraic fractions

Simplify fully:

a) $\frac{r^7}{r^3}$

b) $\frac{e^3 \times e^7}{e^6}$

Simplify by writing in the form $c^n g^m$ where n and m are integers:

c) $\frac{c^4 \times g^2 \times g^5 \times c^3}{c^2 \times g^8}$

Further simplification

Simplify fully:

a) $3a^2b^5 \times 4a^3b^6$

b) $5d^{-3}e \times 2d^4e^{-3}$

c) $\frac{3w^8}{15w^2}$

d) $\frac{2g^3h \times 9g^2h^5}{6g^5h^2}$

Calculations with brackets

Evaluate, leaving your answer as a fraction when necessary:

a) $(-2)^3$

b) $(\frac{3}{4})^3$

c) $(\frac{2}{3})^{-4}$

Rewrite as a fraction in its simplest form:

d) $(\frac{a^2}{b^3})^{-2}$ $(a \neq b)$

Foundation Maths

Geometry and Measure (Foundation)

Perimeter and area in rectangles

Given the rectangle below, calculate (stating the units):

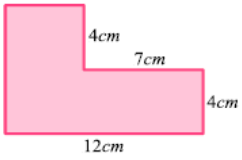
a) The perimeter

b) The area

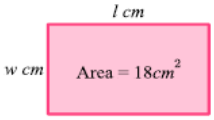
For the given shape, find:

a) Its perimeter

b) Its area

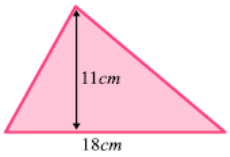


The length (l) and width (w) of this rectangle take integer values. Given that $l > w$, list the possible dimensions of the rectangle.

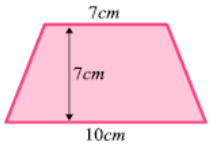


Area of simple shapes

Find the area of this triangle.



Determine the area of this trapezium.

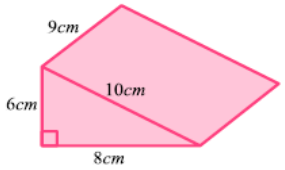


Volume and surface area

For this triangular prism, find:

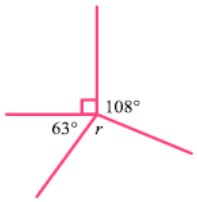
a) The volume

b) The surface area



Angles at a point

Determine the size of angle r.

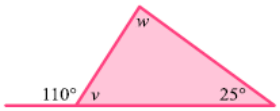


Using angle facts

Find the size of the labelled angles.

v :

w :

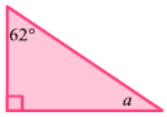


Exterior angles of polygons

The exterior angle of a regular n-sided polygon is 24°. How many sides does this polygon have?

Angles in triangle

Find the size of angle a.
Give a reason for your answer.



Angles in parallel lines

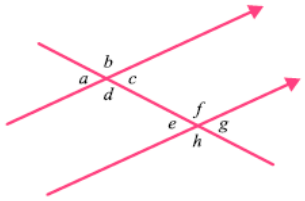
State the rule that means

a) $\hat{b} = \hat{d}$

b) $\hat{c} = \hat{g}$

c) $\hat{d} = \hat{f}$

d) $\hat{d} + \hat{e} = 180°$



Interior angles of polygons

A regular dodecagon has twelve sides. What is the size of the interior angle of a dodecagon?

Ratio & Proportion (Foundation)

Writing ratio

Write the ratio of blue to red.

Simplifying ratio

1) Write in simplest terms:

a) 6 : 3

b) 35 : 20

2) Express in the form 1 : n:

a) 4 : 5

b) $\frac{3}{4} : \frac{1}{2}$

Sharing in a given ratio

a) Share £32 in the ratio 3 : 5

b) Share 49l in the ratio 6 : 1

c) Find the largest portion when £2700 is shared in the ratio 2 : 3 : 4

Compound measures

1) A cyclist travels 51km in three hours. What is the average speed of the cyclist? State the units in your answer.

2) A different cyclist has an average speed of 20km/h. How long would it take them to travel 75km?
Give your answer as hours and minutes.

Proportion

1) y is directly proportional to x. Given that $y = 20$ when $x = 8$, calculate the value of

a) y when $x = 6$

b) x when $y = 85$

2) y is inversely proportional to x. Given that $y = 9$ when $x = 2$, calculate the value of

a) y when $x = 3$

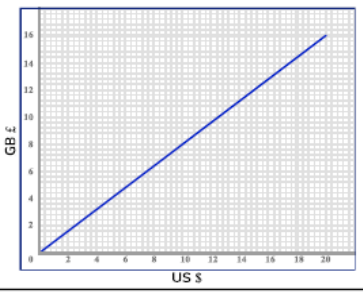
b) x when $y = 0.6$

Conversions using graphs

The graph shows the relationship between US dollars and GB pounds. Use the graph to convert:

a) $5 to GB pounds

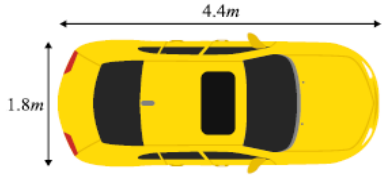
b) £240 to US dollars



Using scale

1) A map has a scale of 1 : 25000. A distance on the map is measured as 14cm. How many kilometres would this distance be as a journey?

2) The dimensions of a production road car are shown below:



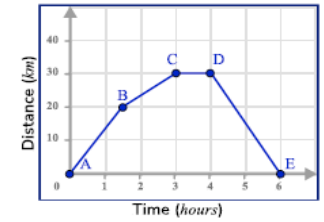
A toy version is made using the ratio 1 : 20.
Find the length and width of the toy car in centimetres.

Distance-time graphs

The distance-time graph shows a cyclist's journey.

a) Between which points was the cyclist stationary?

b) What was the cyclist's average speed between point D and point E?



Foundation Maths

Fractions, Decimals & Percentages (Foundation)

Equivalence

Make the fractions equivalent:

a) $\frac{1}{3} = \frac{}{9} = \frac{5}{} = \frac{}{30}$

b) $\frac{2}{5} = \frac{6}{} = \frac{}{45} = \frac{24}{}$

Write in its simplest terms:

c) $\frac{9}{15} =$

d) $\frac{28}{72} =$

Write as a mixed number:

e) $\frac{23}{3} =$

f) $\frac{22}{4} =$

Write as an improper fraction:

g) $3\frac{2}{5} =$

h) $7\frac{3}{4} =$

Fraction arithmetic

Evaluate:

a) $\frac{1}{2} + \frac{1}{4} =$

b) $\frac{3}{8} + \frac{3}{7} =$

c) $1 - \frac{1}{3} =$

d) $\frac{8}{9} - \frac{5}{6} =$

e) $\frac{1}{4} \times \frac{1}{3} =$

f) $\frac{5}{7} \times \frac{21}{25} =$

g) $\frac{1}{4} \div \frac{1}{8} =$

h) $\frac{4}{11} \div \frac{2}{3} =$

i) $\frac{1}{2} \times \frac{2}{3} \times \frac{3}{4} =$

Converting fractions, decimals & percentages

Complete the table:

Fraction	Decimal	Percentage
$\frac{1}{2}$		
		25%
	0.9	
$\frac{3}{5}$		
	0.375	

Writing percentages

Express as a percentage:

a) 17 out of 25

b) 18 out of 40

c) 23 out of 80

Percentages as operators

Find:

a) 10% of 120

b) 15% of 280

c) 89% of 190

Comparing fractions

Use =, <, or >:

a) $\frac{3}{4}$ ___ $\frac{4}{5}$

b) $\frac{2}{7}$ ___ $\frac{4}{13}$

c) $\frac{17}{6}$ ___ $2\frac{5}{6}$

d) $3\frac{3}{5}$ ___ $\frac{11}{3}$

Fractions as operators

Find:

a) $\frac{1}{2}$ of 26

b) $\frac{2}{5}$ of 35

c) $\frac{3}{4}$ of 36 Kg

d) $\frac{5}{8}$ of £4

Decimal arithmetic

Use a handwritten method to calculate:

a) 4.63 + 2.45 =

b) 1.05 - 0.188 =

c) $1.4 \times 3.8 =$

d) $12.5 \div 0.4 =$

Percentage increase and decrease

a) Increase 86 by 10%

b) Decrease 164 by 35%

Find the percentage change from A to B:

c) $A = 250$, $B = 375$

d) $A =$ £2.80, $B =$ £2.66

Simple interest

£2500 is invested in an account that receives 4% simple interest per annum. What is the total value of the investment after 3 years?

Place value

Given the number 47823,

a) What is the place value of the figure 7?

b) What is the place value of the figure 2?

Given the number 207.0439,

c) What is the place value of the figure 9?

d) What is the place value of the figure 4?

e) Write 417056 using words.

Comparing numbers

Rewrite in ascending order:

a) 9, 17, 3, 11, 13

b) 0.4, 0.42, 0.24, 0.04, 0.024

Rewrite in descending order:

c) 4, -2, -3, 2, -7

Use =, <, or > to compare the numbers:

d) 50134 ____ 50304

e) 0.62 ____ 0.071

f) -5.2 ____ 1.8

Prime numbers

a) Identify the prime numbers:

5, 8, 9, 11, 12, 23

Express as a product of primes, using indices where appropriate:

b) 30

c) 24

e) 231

Common factors

a) List the common factors of 12 and 30

Find the highest common factor of:

b) 15 and 24

c) 18 and 42

d) 36 and 65

Common multiples

Find the lowest common multiple of:

a) 3 and 7

b) 8 and 10

c) 12 and 15

Calculation

Use a handwritten method to calculate:

a) 277 + 146 =

b) 527 - 346 =

c) $7 \times 38 =$

d) $2718 \div 9 =$

Order of operations

Evaluate:

a) $7 + 3 \times 4 =$

b) $17 - 4^2 + 6 =$

c) $2 \times 7 - 10 \div 5 =$

d) $11 - (2 - 6)^2 =$

e) $2 + 7 \times 10 - 5 =$

Directed numbers

Evaluate:

a) -5 + 8 =

b) 7 - (-4) =

c) $3 \times (-6) =$

d) $(-18) \div (-2) =$

e) $(-4) \times (-2) \times (-3) =$

Standard form

Write as an ordinary number:

a) $3 \times 10^2 =$

b) $1.72 \times 10^6 =$

c) $8 \times 10^{-3} =$

d) $6.03 \times 10^{-2} =$

Write in standard form:

e) 4702 =

f) 0.000101 =

g) 9 =

h) 845000 =

Write in correct standard form:

i) $53.7 \times 10^2 =$

j) $0.0014 \times 10^{-2} =$

Measure & Accuracy (Foundation)

Using results

1) Given $4.2 \times 190 = 798$, evaluate:

a) $42 \times 1900 =$

b) $0.42 \times 1.9 =$

2) Given $0.73 \times 462 = 337.26$, evaluate:

a) $73 \times 46.2 =$

b) $33.726 \div 7.3 =$

Truncation

a) Truncate 374.52 to the tens.

b) Truncate 12546 to the thousands.

c) Truncate 21.856 to one decimal place.

d) Truncate 7.386 to an integer.

e) A number is truncated to the hundreds and given as 5000. What is the largest integer the number could have been?

Rounding to powers of ten

1) Round to the nearest integer:

a) 4.45

b) 7.5

c) 2.178

2) Round to the nearest 10:

a) 204

b) 35

c) 83.7

3) Round to the nearest 100:

a) 1080

b) 47

c) 22965

4) Round to the nearest 1000:

a) 3099

b) 46612

c) 24200555

5) Round the number 0.5772156649 to:

a) One decimal place

b) Two decimal places

c) Three decimal places

Significant figures

1) Given the number 34587, state:

a) The first significant figure

b) The third significant figure

2) Given the number 0.0024911, state:

a) The first significant figure

b) The second significant figure

Rounding to significant figures

1) Round to one significant figure:

a) 3528

b) 0.0117

c) 2.735

2) Round to two significant figures:

a) 80702

b) 9.622

c) 0.09952

3) Round to three significant figures:

a) 23746

b) 7.83615

c) 0.089027

Estimation

Estimate:

a) 21.4×986.3

b) $76.28 \div 0.0441$

c) $\dfrac{53.6 \times 18.9}{4.76 \times 5.13}$

Interpreting limits of accuracy

A bag of flour weighs $480g$ to the nearest $10g$.
What is the least the bag of flour could weigh?

What is the most the bag of flour could weigh?

Using a calculator

1) Use a calculator to work out $\dfrac{3.22 + 9.74}{\sqrt{3.37}}$

a) Write down the full calculator display

b) Round your answer to three decimal places

2) Use a calculator to work out $\sqrt{9.77 - 2.85} \times 0.15^2$

a) Write down the full calculator display

b) Round your answer to two significant figures

Higher Maths

Ultimate revision video

OCR Higher Papers 5 & 6 UNSEEN TOPICS

Corbett maths

www.corbettmaths.com/contents

This is a list of topics that have not been tested in Paper 4 or usually are more prominent.
If I were revising for Papers 5 & 6, these are the topics that I would revise first, starting with the starred topics.
As topics from Paper 4 may still appear on Papers 5 & 6, make sure that you spend time revising those too.

- Adding Fractions - Video 133
- Multiplying Fractions - Video 142
- Dividing Fractions - Video 134
- Reciprocal - Video 145
- Decimals - Video 90, 91, 92, 93, 94
- Estimation - Video 215
- Best Buys - Video 210
- Currency - Video 214a
- Conversion Graphs - Video 151, 152
- LCM/HCF - Videos 218, 219
- Product of Primes - Videos 223, 224
- Indices (fractional/negative) - Videos 173, 175
- Standard Form - Videos 300, 301, 302, 303
- Percentages of Amounts - Videos 234, 235, 238
- Percentage change - Video 233
- Simple Interest - Video 236a
- Reverse Percentages - Video 240
- Recurring Decimals to Fractions - Video 96
- Ratio - Videos 270, 271, 271a, 271b, 271c
- Direct Proportion - Video 254
- Proportional Graphs - Video 255b
- Proportion (application) - Video 255c
- Limits of Accuracy - Videos 183, 184
- Surds - Videos 305, 306, 307, 308
- Product Rule for Counting - Video 383
- Error Intervals - Video 377, 280

- Equation of a tangent - Video 372
- Area under a curve - Video 389
- Composite Functions - Video 370
- Inverse Functions - Video 369
- Quadratic Graphs - Video 264
- Solving Quadratics Graphically - Videos 367c,d
- Sketching Quadratics - Video 265
- Trigonometric Graphs - Videos 338, 339
- Cubic Graphs - Video 344
- Reciprocal Graphs - Video 346
- Exponential Graphs - Video 345
- Geometric Sequences - Video 375
- Algebraic Proof - Video 365
- Quadratic Formula - Video 267
- Completing the Square - Video 10, 371
- Transformations of Graphs - Video 323, 324
- Identities - Video 16a

- Angles in Parallel Lines - Video 25, 39
- Bearings - Video 26, 27
- Constructions - Video 78, 72, 79, 80, 70
- Loci - Videos 75, 76, 77
- Views - Video 354
- Area of a Circle - Video 40
- Arc Length - Video 58
- Area of a Sector - Video 48
- Volume of a Cylinder - Video 357
- Pythagoras - Video 257, 259
- Trigonometry - Videos 329, 330, 331
- 3D Trig and Pythagoras - Videos 259, 332
- Exact Trig Values - Video 341
- Volume of a Prism - Video 356
- Volume of Cone/Pyramid/Sphere - Videos 359-361
- Volume of a Frustum - Video 360a
- Surface Area of a Prism - Video 311
- Surface Area of Cone/Sphere - Videos 314, 313
- Metric Units (area/volume) - Videos 350, 351
- Translations - Video 325
- Reflections - Video 272
- Rotations - Video 275
- Enlargements - Videos 104, 106, 107, 108
- Similar Shapes - Videos 292, 293a, 293b
- Circle Theorems - Videos 64, 65
- Sine Rule - Video 333
- Cosine Rule - Videos 335, 336
- 1/2abSinC - Video 337
- Vectors - Video 353, 353a
- Travel Graphs - Video 171
- Density - Video 384
- Pressure - Video 385
- Geometric Proof - Video 366
- Congruent Triangles - Video 67
- Invariant Points - Video 392

- Frequency Trees - Video 376
- Two-way Tables - Video 319
- Pie Charts - Videos 163, 164
- Histograms - Video 157, 158, 159
- Box Plots - Video 149
- Independent Events - Video 249
- Estimated Mean - Video 55
- Combined Mean - Video 53a
- Median (frequency table) - Videos 51, 52
- Modal class (frequency table) - Video 56a
- Probability - Video 250
- Relative frequency - Video 248
- Tree Diagrams - Video 252
- Conditional Probability - Video 247

- Collecting Like Terms - Video 9
- Factorising - Video 117
- Factorising Quadratics - Videos 118, 119, 120, 119a
- Algebraic Fractions - Videos 21, 22, 23, 24
- Sequences (nth term) - Videos 288, 289
- nth term (quadratics) - Video 388
- Substitution - Video 20
- Equations - Videos 110, 113, 114, 115
- Changing the Subject - Videos 7, 8
- Inequalities - Videos 177, 178, 179
- Inequalities (Regions) - Video 182
- Quadratic Inequalities - Video 378
- Linear Graphs - Videos 191, 186, 189, 194
- Midpoint of a Line - Video 198
- Distance between 2 points - Video 185
- Real-life Linear Graphs - Video 171a
- Perpendicular Lines - Video 197
- Non-linear Simultaneous Equations - Video 298
- Graphical Simultaneous Equations - Video 297

Higher Maths

Revision Mats | Algebra

Expressions, Equations and Inequalities (Higher)

Factorising

Fully factorise:

a) $4x + 20$

b) $6x - 9$

c) $4ab + 6ac$

Completing the square

Write in the form $a(x + b)^2 + c$:

a) $x^2 - 4x + 3$

b) $x^2 + 5x + 6$

c) $2x^2 + 4x + 9$

Algebraic fractions

Simplify:

a) $\frac{1}{x+3} + \frac{3}{2-x}$

b) $\frac{x^2+11x+30}{x^2-36}$

Solve for x:

c) $\frac{2}{x-5} = \frac{x}{x-3}$

Iteration

a) Show that $x^3 + 4x = 2$ can be written as $x = \frac{1}{2} - \frac{x^3}{4}$

b) Use the formula $x_{n+1} = \frac{1}{2} - \frac{x_n^3}{4}$ with $x_0 = 0$ to find a solution accurate to 3 decimal places to $x^3 + 4x = 2$

Simplifying expressions

Simplify:

a) $2a \times 3b \times 4c$

b) $28xy \div 4y$

c) $4a + 3b - 5a$

Expanding brackets

Remove the brackets by multiplying:

a) $3(x + 2)$

b) $-2(3x - 5)$

c) $x(x - 4)$

Changing the subject

a) Given $v = u + at$ make a the subject

b) Given $P = I^2R$ make I the subject.

Product of binomials

Expand and simplify:

a) $(x + 3)(x + 5)$

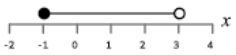
b) $(2x + 1)(3x - 1)$

c) $(x - 1)(x + 1)(x - 3)$

d) $(2x - 3)^3$

Inequalities

a) Write the inequality that is described by the number line:

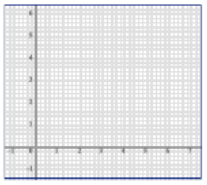


b) Find the set of integers satisfying the inequality:

$-3 \leq n < 2$

c) Solve the inequality $2x + 7 > 5$, representing your solution on the number line:

d) Shade the region that simultaneously satisfies the inequalities $x < y$, $x + y \geq 6$ and $x \leq 5$



e) Solve the inequality: $x^2 - 2 \geq 23$

Substitution

Let $a = 4$, $b = -1$, $c = 5$, $d = -2$

Evaluate:

a) $d - 3b$

b) ab

c) $ad - bc$

d) $\frac{abc}{d}$

e) $d^2 - a$

f) $(a + b)^2 - d$

Simultaneous equations

Solve each pair of equations for x and y:

a) $x + y = 21$
$x - y = 9$

b) $4x + 3y = 23$
$3x - 2y = -4$

c) $y = 2x^2 - 4x + 1$
$y = 5 - 2x$

Solving quadratic equations

Solve by factorising:

a) $x^2 + x - 6 = 0$

b) $x^2 - 64 = 0$

Solve by factorising:

$x^2 - 5x - 13 = 0$

Solve by completing the square:

$x^2 + 3x - 7 = 0$

Factorising quadratics

Factorise:

a) $x^2 - 7x + 12$

b) $x^2 - 25$

c) $6x^2 + 17x + 12$

d) $8x^2 - 52x + 24$

Equations of one unknown

Solve for x:

a) $17 - x = 9$

b) $3x + 7 = 22$

c) $5x + 2 = 16 - x$

d) $18 - 7x = 31 - 9x$

Indices and products

Simplify fully:

a) $a^3 \times a^2$

b) $t^5 \times t \times t^3$

c) $h \times h^{-4} \times h^3$

Indices and algebraic fractions

Simplify fully:

a) $\frac{r^9}{r^2}$

b) $\frac{e^3 \times e^7}{e^6}$

c) $\frac{c^4 \times g^3 \times g^5 \times c^3}{c^2 \times g^8}$

Arithmetic with surds

Write in simplest form:

a) $\sqrt{3} + 4\sqrt{3}$

b) $3\sqrt{2} - 2\sqrt{2}$

c) $\sqrt{16} - \sqrt{9}$

Indices and surds

Write in the form x^n where n is a fraction in its simplest form:

a) $\sqrt[4]{h^3}$

b) $\sqrt[3]{d^{-5}}$

Write in the form $\sqrt[6]{x^b}$:

c) $w^{\frac{2}{3}}$

Reducing surds

Simplify fully:

a) $\sqrt{98}$

b) $\sqrt{28}$

c) $\sqrt{108}$

d) $\sqrt{116}$

Surds and brackets

Expand and fully simplify:

a) $\sqrt{5}(3 + \sqrt{5})$

b) $\sqrt{10}(\sqrt{20} - \sqrt{5})$

c) $\sqrt{2}(\sqrt{14} - \sqrt{3})$

d) $\sqrt{3}(\sqrt{27} + \sqrt{3})$

Indices and division

Simplify fully:

a) $p^9 \div p^4$

b) $w^{-3} \div w^{-5}$

c) $u^2 \div u^3$

d) $d \div d^{-4}$

Further simplification

Simplify:

a) $3a^2b^5 \times 4a^3b^6$

b) $7d^{-3}e \times 2d^4e^{-3}$

c) $\frac{9w^8}{15w}$

d) $\frac{2g^3h \times 9g^2h^5}{6g^5h^4}$

Indices and brackets

Simplify:

a) $(r^3)^2$

b) $(x^4)^{-3}$

Write in the form kx^n where k and n are integers:

c) $(2j^5)^3$

d) $3(h^{-2})^{-3}$

Rationalising denominators

Rationalise the denominator and simplify fully:

a) $\frac{1}{\sqrt{3}}$

b) $\frac{2}{\sqrt{10}}$

c) $\frac{1}{1+\sqrt{7}}$

d) $\frac{13+5\sqrt{7}}{\sqrt{7}}$

Calculations with brackets

Evaluate, leaving your answer as a fraction when necessary:

a) $(-2)^3$

b) $(\frac{3}{4})^3$

c) $(\frac{2}{3})^{-4}$

d) $(\frac{16}{25})^{\frac{3}{2}}$

Products of binomials involving surds

Expand and fully simplify:

a) $(3 + \sqrt{5})(3 + \sqrt{5})$

b) $(2 + \sqrt{3})(4 - \sqrt{3})$

c) $(5 + \sqrt{3})(5 - \sqrt{3})$

d) $(\sqrt{3} + \sqrt{6})(3 + \sqrt{2})$

Higher Maths

Revision Mats | Geometry

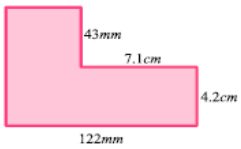
Geometry and Measure (Higher)

Area and perimeter

For the given shape, find:

a) Its perimeter

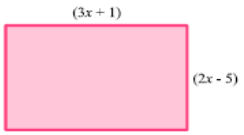
b) Its area



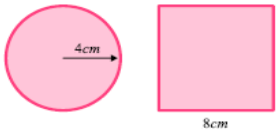
Given the rectangle below, give an expression for:

a) The perimeter in the form $mx + n$

b) The area in the form $ax^2 + bx + c$

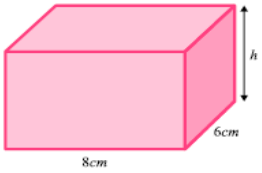


Giving your answer to one decimal place, find the difference in the area of a circle of radius $4cm$ and the area of a square of side length $8cm$.



Volume and surface area

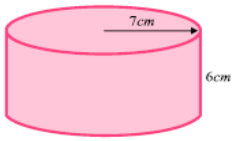
Given that this cuboid has a volume of $336cm^3$, find the value of h.



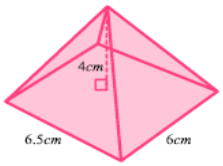
For the given cylinder, find:

a) The volume

b) The surface area

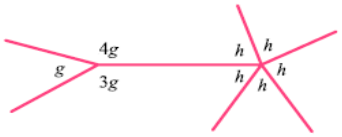


Use the formula $V = \frac{1}{3}bh$ where b is the base area and h is the perpendicular height from base to apex, to calculate the volume of this pyramid.



Angles at a point

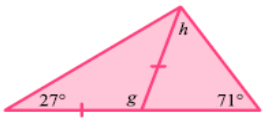
Using the diagram shown, evaluate $h - g$.



Angles in triangles

Find the size of angle g.

Find the size of angle h.



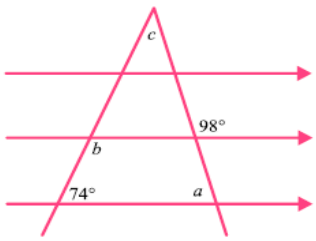
Angles in parallel lines

Determine the size of each labelled angle:

a :

b :

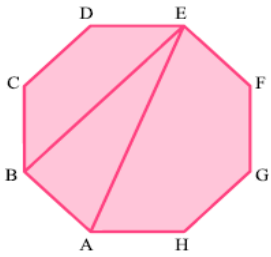
c :



Angles in polygons

ABCDEFGH is a regular octagon.

Determine the size of angle $\widehat{BEA}$.



Interior and exterior angles

Find the difference between the interior angle and exterior angle of an icosahedron.

Polygon properties

A particular regular n-gon has an exterior angle x satisfying $50° < x < 60°$.

State the name of this n-gon and find the size of one interior angle accurate to two decimal places.

Revision Mats | Ratio & Proportion

Ratio & Proportion (Higher)

Simplifying ratio

Write in simplest terms using integers:

a) $6 : 15 : 12$

b) $\frac{2}{3} : \frac{3}{4}$

c) $0.6 : 0.15$

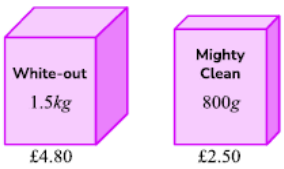
Direct proportion

The variables g and h are related such that h is proportional to the square of g.

Complete the table of values.

g	2	4	
h		12	18.75

Best buys



Which box of laundry detergent is the best value for money? Show your reasoning clearly.

Multiplicative reasoning

Jani is making cupcakes with the following recipe:

How much of each ingredient would Jani need to make 30 cupcakes?

Inverse proportion

You are told that y is inversely proportional to x.

Given that $y = 12$ when $x = 8$ calculate the value of

a) y when $x = 3$

b) x when $y = 15$

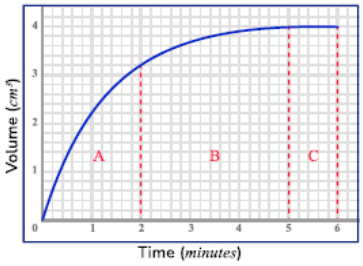
Ratio problems

1) Addy and Jai own collections of stamps in the ratio 5 : 4. Addy gives Jai 5 stamps and now the ratio is 5 : 7. How many stamps did Addy and Jai each have initially?

2) Red paint costs £3.50 per litre.
Blue paint costs £2.45 per litre.
Purple paint is a mixture of red and blue in the ratio 3 : 4.
Work out the cost of 12 litres of purple paint.

Describing rates of change

This graph shows the volume of gas produced in a chemical reaction.



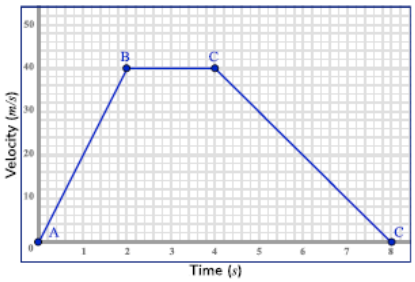
By reference to regions A, B and C describe the rate of the reaction during the six minute period.

Velocity-time graphs

Using this velocity-time graph for a particle in motion,

a) Work out the particle's acceleration between A and B.

b) Calculate the distance travelled by the particle.



Fractions, Decimals & Percentages (Higher)

Equivalence

a) Make the fractions equivalent:

$\frac{3}{} = \frac{}{12} = \frac{12}{16} = \frac{54}{}$

b) Write in its simplest terms:

$\frac{312}{858} =$

c) Write as a mixed number:

$\frac{94}{7} =$

d) Write as an improper fraction:

$5\frac{4}{9} =$

Fraction arithmetic

Evaluate:

a) $\frac{1}{2} + \frac{1}{3} + \frac{1}{8} =$

b) $2\frac{1}{4} - \frac{5}{6} =$

c) $\frac{4}{5} \times 1\frac{1}{3} =$

d) $1\frac{2}{3} \div \frac{2}{9} =$

e) $\frac{7}{8} \div \frac{2}{3} \times \frac{2}{5} =$

Decimal arithmetic

Use a handwritten method to calculate:

a) $5.19 - 3.4 + 2.078 =$

b) $0.15 \times 6.3 =$

c) $2.64 \div 3.2 =$

d) $(0.3)^3 =$

Percentage change

Find the percentage change in price when a guitar is reduced from £320 to £280.

Compound interest

£3200 is invested in an account that receives 2.5% compound interest per annum. What is the total value of the investment after 4 years?

The value of a car decreases by 10% each year. If it was bought for £8000, how much is it worth five years later?

Comparing fractions and decimals

Use =, <, or >:

a) $\frac{3}{5}$ ___ $\frac{6}{11}$

b) $\frac{5}{8}$ ___ 0.625

c) $1\frac{5}{6}$ ___ $\frac{44}{24}$

d) $\frac{13}{8}$ ___ 1.63

e) $\frac{3}{7}$ ___ 0.42

Fractions as operators

Find:

a) $\frac{2}{3}$ of 186

b) $\frac{5}{6}$ of $3\frac{1}{2}$

c) $\frac{13}{20}$ of 72 Kg

d) $\frac{3}{8}$ of £10.96

Recurring decimals and fractions

Write as a recurring decimal:

a) $\frac{1}{6} =$

b) $\frac{7}{99} =$

c) $\frac{2}{7} =$

Write as a fraction in its simplest terms:

e) $0.\dot{8} =$

f) $0.2\dot{7} =$

g) $0.0\dot{6}\dot{6} =$

Reverse percentages

The price of a computer including 20% VAT is £570. What was the price of the computer excluding VAT?

The population of an island is 15% lower than it was ten years ago. If the population is now 13600, what was the population ten years ago?

Measure & Accuracy (Higher)

Using results

1) Given $37 \times 82 = 3034$, evaluate:

a) $3.7 \times 820 =$

b) $0.37 \times 8.2 =$

c) $3034 \div 820 =$

2) Given $2.14 \times 47.2 = 101.008$, evaluate:

a) $21.4 \times 472 =$

b) $1010080 \div 4.72 =$

Rounding to powers of ten

1) Round the number 26485 to:

a) The nearest ten

b) The nearest hundred

c) The nearest thousand

2) Round the number 1.618803399 to:

a) One decimal place

b) Two decimal places

c) Three decimal places

Estimation

1) Estimate:

a) 32.8×46.5

b) $834.5 \div 3.76$

c) $\frac{68.2 \times 10.9}{\sqrt{50}}$

2) Estimate the value of $\sqrt{87}$, giving your answer to one decimal place.

Interpreting limits of accuracy

A square has side length $8cm$ to the nearest centimetre.

a) What is the largest possible area of the square?

b) What is the smallest possible area of the square?

Error intervals

The height (h) of a tree is measured to be $1.3m$ to the nearest $5cm$.
Using an inequality, write the error interval for the height.

Truncation

a) Truncate 41056 to the tens.

b) Truncate 28736 to the hundreds.

c) Truncate 3.14159 to two decimal places.

d) Truncate 23.995 to an integer.

e) A number is truncated to the tens and given as 6430. What is the largest integer the number could have been?

Rounding to significant figures

1) Round to one significant figure:

a) 56.034

b) 0.0419

c) 7555

2) Round to three significant figures:

a) 100623

b) 4.3994

c) 66944

Using a calculator

1) Use a calculator to work out $\sqrt[3]{3542}$

a) Write down the full calculator display

b) Round your answer to three decimal places

2) Use a calculator to work out

$\sqrt{\frac{3.5 + 2.77}{14 - 6.7}}$

a) Write down the full calculator display

b) Round your answer to two significant figures

Bounds

A rectangle has width (w), of $5cm$ (to the nearest cm) and length (l), of $8.8cm$ (to the nearest mm).

a) Find the upper bound for the perimeter

b) Find the lower bound for the proportion $\frac{l}{w}$

Higher Maths

Directed numbers

Evaluate:

a) $-9 + 8 =$

b) $-7 - (-11) =$

c) $(-4) \times (-6) =$

d) $(15) \div (-5) =$

e) $3 \times (-2) \times (-5) =$

Comparing numbers

Rewrite in ascending order:

a) 19.1, 19.9, 11.9, 11.01, 19.09

b) 0.3, 0.32, 0.003, 0.03, 0.303

Rewrite in descending order:

c) -9.9, -9.2, -2.3, 3.2, -2.7

d) 4010, 4110, 4001, 4011, 4101

Use =, <, or > to compare the numbers:

e) 40.14 ____ 40.104

f) 0.6102 ____ 0.67

g) -0.112 ____ -0.12

Prime numbers

List the prime numbers greater than 70 and less than 90:

Express as a product of primes, using indices where appropriate:

a) 18

b) 2000

c) 187

d) 273

Highest common factor

Find the highest common factor of:

a) 12 and 28

b) 54 and 81

c) 36, 60 and 96

Lowest common multiple

Find the lowest common multiple of:

a) 6 and 14

b) 18 and 27

c) 15, 20 and 35

Order of operations

Evaluate:

a) $2 \times 5 + 3 \times 4 =$

b) $19 - 5^2 + 6 =$

c) $(2^4 - 10) \div 2 =$

d) $(1 - 4)^2 - (2 - 6)^2 =$

e) $3^2 \times 7 + 10 \div 5 =$

Calculation

Use a handwritten method to calculate:

a) $186 - 239 + 78 =$

b) $56 \times 73 =$

c) $17 \times 392 =$

d) $14214 \div 23 =$

Standard form

Write as an ordinary number:

a) $4.1 \times 10^4 =$

b) $8.6 \times 10^{-5} =$

c) $2.003 \times 10^{-2} =$

Write in standard form:

d) $57004 =$

e) $0.0000012 =$

f) $607.38 =$

Write in correct standard form:

g) $103.2 \times 10^{-4} =$

h) $0.088 \times 10^{-3} =$

Calculations using standard form

Evaluate, writing your answer in standard form:

a) $(2.5 \times 10^5) + (6.3 \times 10^4) =$

b) $(4.27 \times 10^6) - (8.1 \times 10^5) =$

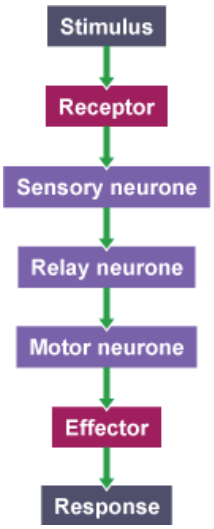
c) $(1.07 \times 10^{-2}) - (9.8 \times 10^{-3}) =$

d) $(7 \times 10^2) \times (8 \times 10^4) =$

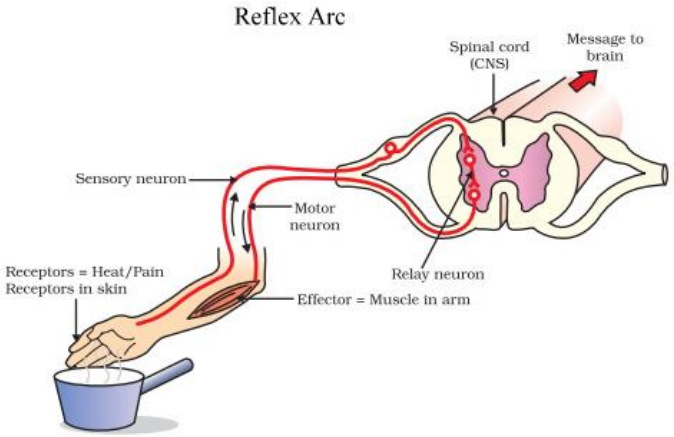
e) $(2.4 \times 10^3) \div (9.6 \times 10^7) =$

Subject Information Science

Homeostasis is the maintenance of a constant internal environment to maintain optimum conditions for the functions, especially enzymes, of an organism. In humans, blood glucose, temperature and water levels need to be controlled.

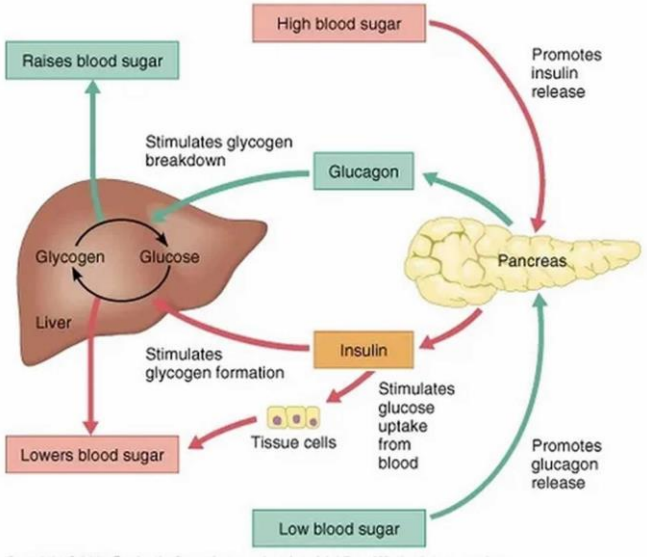


Receptors detect a stimulus (change), coordination centres (brain, spinal cord) process information, effectors (muscles or glands) bring about a response to return to optimum conditions.



Required practical: You will have carried out a practical investigation looking at how different factors, such as caffeine, affect reaction times. You might have done the 'ruler drop test', the person catches the ruler by closing their hand and the length from the ruler is converted into a reaction time.

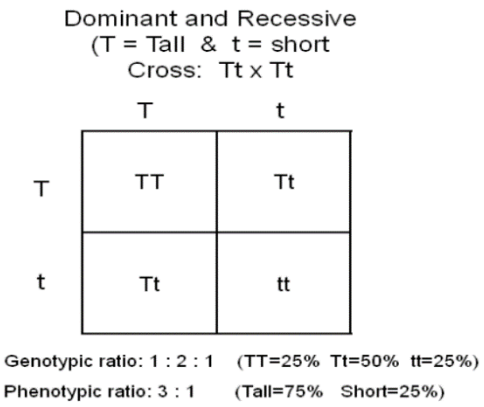
The endocrine system is composed of glands which secrete hormones directly into the bloodstream to travel round the body and act on a target organ. These signals are slower than the nervous system but last for longer. The pituitary gland in the brain is the 'master gland', helping homeostasis. The pancreas monitors and controls blood glucose concentration. If too high, insulin is produced which causes glucose to move from the blood into cells (the liver and muscle cells store excess glucose as glycogen).



Diabetes is a condition where blood glucose concentration is hard to maintain due to insulin problems. Type 1diabetes is when the pancreas fails to produce sufficient insulin, so sufferers need to inject themselves with insulin. Type 2 is when the body cells no longer respond to insulin, even though it's produced, often due to obesity, their blood glucose is controlled through diet and exercise.

Hormones are involved in human reproduction, causing the development of secondary sex characteristics during puberty. Testosterone is the main male reproductive hormone, produced in the testes, which stimulates sperm production. Oestrogen is the main female reproductive hormone, produced in the ovaries. After puberty, eggs mature and one is released roughly every 28 days (ovulation). Other hormones are involved in the menstrual cycle –FSH matures eggs in the ovaries, LH stimulates egg release. Oestrogen and Progesterone maintain the uterus lining. Contraception is used in the control of fertility. **Contraception** can be hormonal (the pill, the injection, implant, IUD or patch) which limits maturation, release or implantation of embryos. They can be non-hormonal (barrier – condoms and diaphragms, spermicidal agents, copper IUD) which prevent sperm reaching egg cells.

Subject Information Science



Humans have 23 pairs of chromosomes, with pair number 23 being the 'sex chromosomes'. XX determines female sex, XY determines male sex. You should be able to carry out a cross to determine the 50:50 ratio.

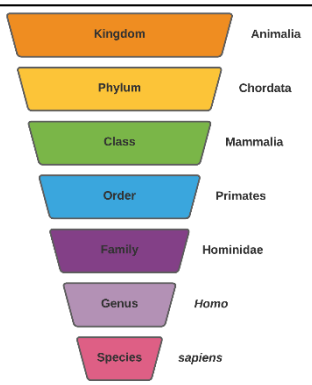
Characteristics (phenotypes) are controlled by genes (genotypes) and/or by the environment. Alleles are different versions of genes. You have two alleles for every gene (one from mother, one from father). A dominant allele is always expressed, even if you only have 1 copy. A recessive allele is only expressed when both copies are present. If you have two of the same allele it is known as homozygous, two different versions is called heterozygous. A Punnett square can be used to predict offspring. Some disorders (polydactyly and cystic fibrosis) are inherited conditions.

Differences in characteristics is called **variation**. There is usually extensive genetic variation within a species. Variants in genetics arise from mutations. Most mutations don't lead to a new phenotype. If a new phenotype is advantageous, it can lead to change in a species (**EVOLUTION**) through natural selection. Evidence for evolution includes fossils and antibiotic resistance in bacteria. Early life was soft-bodied so there is an incomplete fossil record, but later life has left behind footprints or preserved body parts. Extinction occurs when there are no remaining individuals of a species still alive, which can be caused by many factors but especially human activities.

Selective breeding is the process by which human breed plants or animals for a particular characteristic, choosing parents with a desired characteristic and then choosing their offspring with desired characteristics to continue breeding.

Genetic engineering is a process which involves modifying the genome of an organism by introducing a gene from another organism to give a desired characteristic e.g bacteria that can produce human insulin

Organisms are adapted to survive in their environment. Some organisms (extremophiles) live in extreme environments e.g. the Arctic or desert. Plants are producers at the start of a food chain. They can then be eaten by primary consumers, which are then eaten by secondary consumers, etc. Organisms that eat other animals (carnivores) are predators, those that are eaten are prey. There are relationships between the number of predators and prey in an environment, which rise and fall in cycles



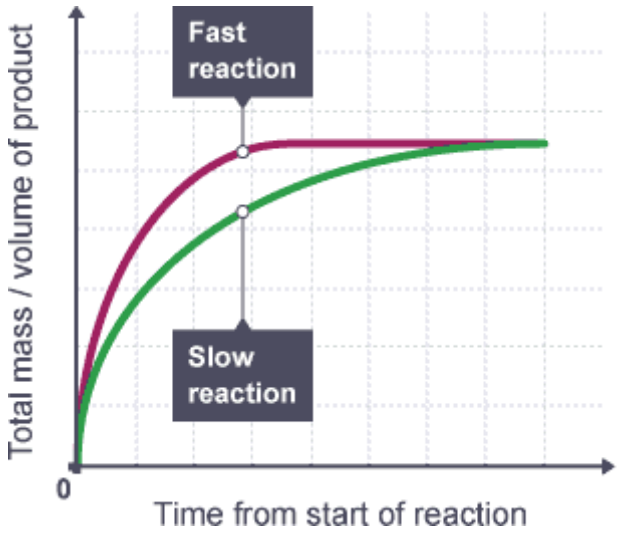
Ecosystems are made up of groups of organisms interacting with the environment around them. They are influenced by living factors (biotic – predators, pathogens, competition) and non-living factors (abiotic factors – light intensity, temperature, pH, wind intensity, etc.)

Organisms require a supply of materials from their surroundings and will often compete/interact with each other for resources (interdependence).

Organisms are adapted to survive in their environment. Some organisms (extremophiles) live in extreme environments e.g. the Arctic or desert. Plants are producers at the start of a food chain. They can then be eaten by primary consumers, which are then eaten by secondary consumers, etc. Organisms that eat other animals (carnivores) are predators, those that are eaten are prey. There are relationships between the number of predators and prey in an environment, which rise and fall in cycles

Subject Knowledge Check Science

Define a Hormone	
What do you call the parts of the body that secrete hormones?	
How do Hormones move around the body?	
Where are the adrenal glands located in the body?	
Which organ controls and monitors blood glucose levels?	
Which type of diabetes requires insulin injections?	
What is the major risk factor of type 2 diabetes?	
Which receptors detect changes in temperature and pressure	
Which is the fastest a nervous response or a hormonal response?	
Which lasts the longest a nervous response of a hormonal response?	
What type of cell does mitosis produce?	
What type of cell does meiosis produce?	
What does the mixing of genetic information lead to?	
How many "daughter cells" are formed during meiosis?	
What are the structures DNA is contained in called?	
What is the entire genetic material of the organism, know as?	
Why is it important that the entire human genome is studied?	
What is an allele?	
What is a dominant allele?	
what is a recessive allele?	
What type of cell does mitosis produce?	
What type of cell does meiosis produce?	
What does the mixing of genetic information lead to?	
How many "daughter cells" are formed during meiosis?	



The rate of a reaction is a measure of how quickly a *reactant* is used up, or a *product* is formed.

Collision theory

For a chemical reaction to happen:

- *reactant particles* must collide with each other
- the particles must have enough energy for them to react

A collision that produces a reaction is called a *successful collision*. The *activation energy* is the minimum amount of *energy* needed for a collision to be successful. It is different for different reactions.

There are different ways to determine the rate of a reaction. The method chosen usually depends on the reactants and products involved, and how easy it is to measure changes in them.
The mean rate of reaction can be calculated using either of these two equations:
The *gradient* of the line is equal to the rate of reaction:

- the steeper the line, the greater the rate of reaction
- fast reactions - seen when the line becomes horizontal - finish sooner than slow reaction.

The *alkanes* form a *homologous series*. Like all homologous series, the alkanes:

- have the same *general formula*
- differ by CH_2 in *molecular formulae* from neighbouring *compounds*
- show a gradual variation in physical *properties*, such as their *boiling points*
- have similar chemical properties

General formula

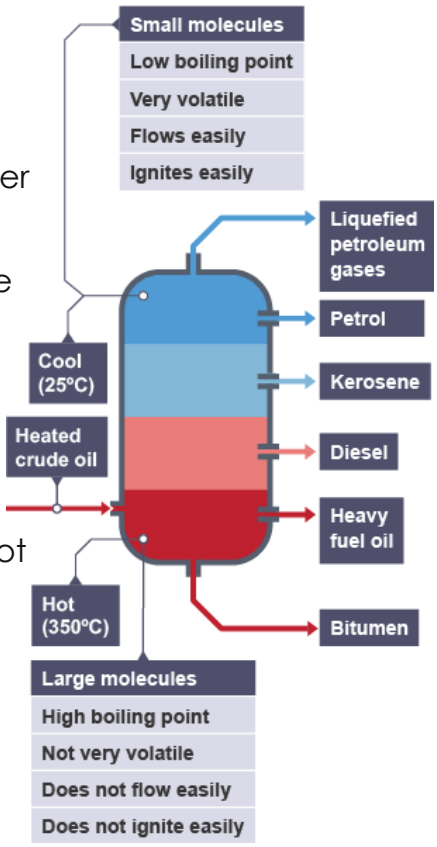
The general formula for the alkanes is C_nH_{2n+2}, where n is the number of carbon atoms in the molecule.

Fractional distillation is used to separate *crude oil* into simpler, more useful *mixtures*. This method can be used because different *hydrocarbons* have different *boiling points*.

Fractional distillation

During the fractional distillation of crude oil:

- heated crude oil enters a tall *fractionating column*, which is hot at the bottom and gets cooler towards the top
- *vapours* from the oil rise through the column
- vapours *condense* when they become cool enough
- liquids are led out of the column at different heights



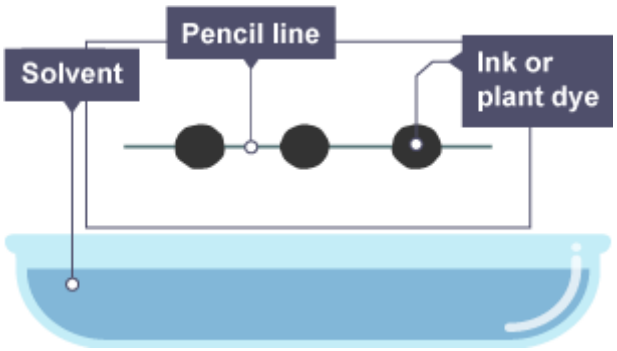
Small hydrocarbon molecules have weak *intermolecular forces*, so they have low boiling points. They do not condense, but leave the column as gases. Long hydrocarbon molecules have stronger intermolecular forces, so they have high boiling points

Subject Information Science

Gas Test	Observation	Inference
Glowing splint held in a test tube	Splint relights	Oxygen is present
Lighted splint held in a test tube	Pop sound heard	Hydrogen is present
Gas bubbled through limewater	Limewater turns milky or cloudy white	Carbon dioxide is present
Damp litmus paper held in a test tube	Paper turns white	Chlorine is present

Chromatography Required Practical Method

1. draw a pencil line across the chromatography paper, 1 - 2 cm from the bottom
2. use a pipette or capillary tube to add small spots of each ink to the line on the paper
3. place the paper into a container with a suitable solvent in the bottom
4. allow the solvent to move through the paper, but remove the *chromatogram* before it reaches the top
5. allow the chromatogram to dry, then measure the distance travelled by each spot and by the solvent



Without *greenhouse gases* in its *atmosphere*, the mean temperature on Earth would be about -18°C. That would make it too cold to support life as we know it. Greenhouse gases present in the atmosphere include:

- water *vapour*
- *carbon dioxide*
- *methane*

Human activities are increasing the amount of some greenhouse gases in the atmosphere. For example:

- farming cattle releases *methane*
- farming rice in *paddy fields* releases methane
- burning *fossil fuels* in vehicles and *power stations* releases carbon dioxide
- *deforestation* releases carbon dioxide and reduces the absorption of carbon dioxide through *photosynthesis*

Pollutant	Source
Carbon dioxide, CO_2	Complete combustion of any fuel containing carbon atoms
Carbon monoxide, CO	Incomplete combustion of any fuel containing carbon atoms
Particulate carbon, C (soot)	Incomplete combustion of any fuel containing carbon atoms
Unburned hydrocarbons	Hydrocarbon fuel molecules which have not been oxidised at all
Sulfur dioxide, SO_2	Combustion of a fossil fuel which contains sulfur impurities
Nitrogen oxides, NO_x	Oxidation of atmospheric nitrogen inside the engine of a car, lorry,

Subject Knowledge Check Science

Is crude oil a compound, element or mixture?	
What process is used to separate crude oil?	
What is a hydrocarbon?	
How can you test for the presence of a double bond?	
What is the general formula for an alkane?	
What is the general formula for an alkene?	
Draw the displayed structure of Propane.	
What is the chemical formula of Ethane?	
What does viscosity mean?	
What is cracking?	
Is crude oil a compound, element or mixture?	
What process is used to separate crude oil?	
How can you test for hydrogen gas?	
How can you test for oxygen gas?	
How can you test for carbon dioxide gas?	
How can you test for chlorine gas?	
How do you calculate the Rf value of a substance?	
What is the mobile phase in chromatography?	
What is the stationary phase in chromatography?	
What is a pure substance?	
What is a formulation?	
How can you test if a substance is pure?	
How can you test for hydrogen gas?	
How can you test for oxygen gas?	

An activity centre sells Adult tickets and Child tickets.
A ticket can be a Day pass or a Weekend pass.

The incomplete two-way table gives some information about the number of each type of ticket sold last Saturday.

	Day pass	Weekend pass	Total
Adult ticket	30		67
Child ticket		21	
Total			120

(a) Complete the two-way table.

(3)

One of the people at the activity centre last Saturday with an Adult ticket is selected at random.

(b) Write down the probability that their ticket is a Day pass.

.....

(1)

(c) Compare the number of Day passes sold and the number of Weekend passes sold.
You should make two comparisons.

1 .....

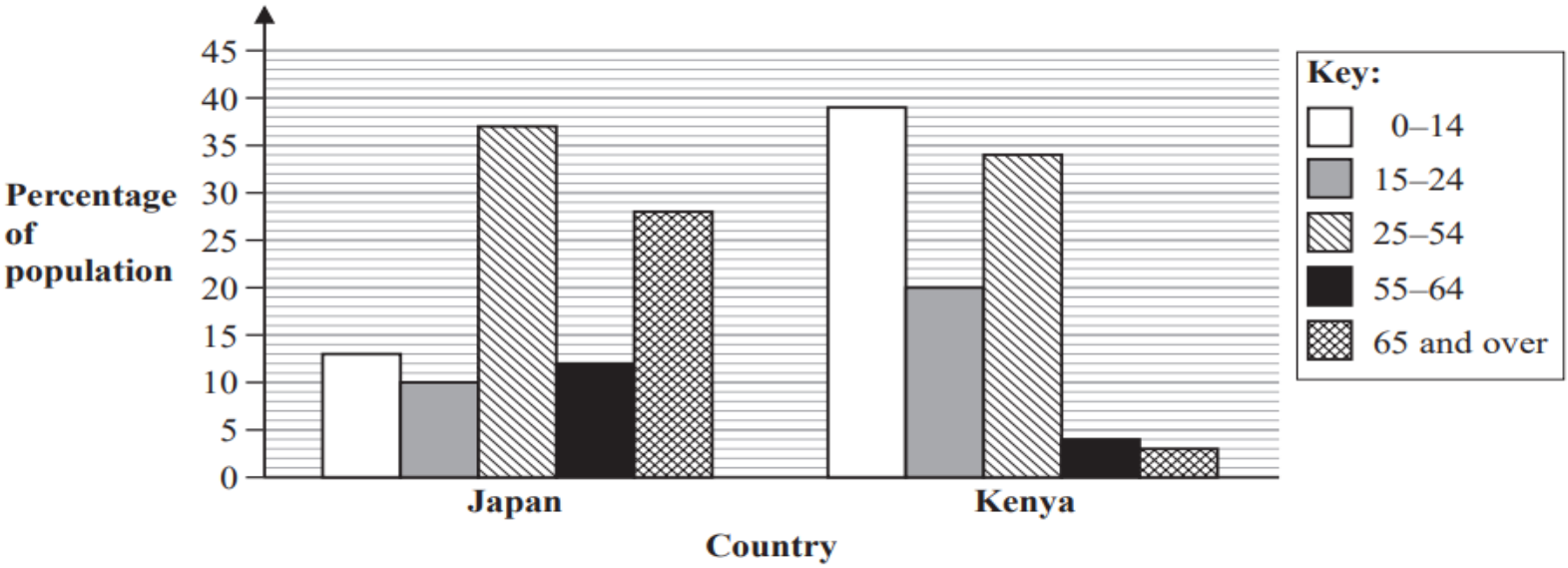
.....

2 .....

.....

(2)

6 The multiple bar charts show information about the percentages of the population in each of Japan and of Kenya that are in each of five different age groups.



(Source: *https://www.cia.gov/library/publications/the-world-factbook*)

One person is selected at random from the population of Japan.

(a) Work out the probability that this person is **not** in the age group 15–24

.....%

(2)

(b) Compare the percentage of the population of Japan aged 0–14 with the percentage of the population of Kenya aged 0–14
Justify your answer using values from the multiple bar charts.

.....

.....

(2)

There are two statements below.

(c) Decide whether each statement is true for Japan only or for Kenya only or for both countries or for neither country.
Justify each answer using information from the multiple bar charts.

(i) "The age group 55–64 has more than 10% of the population."

The statement is true for .....

.....

.....

(2)

(ii) "There is only one age group with a smaller population than the age group 55–64"

The statement is true for .....

.....

.....

Naomi wants to find out what opinions people in her town have about holidays.

She designed a questionnaire and gave it to each person in a sample of 30 people who live in her town to complete.

Her questionnaire, her results and her conclusions are shown below.

Questionnaire:

1. Do you agree that August is the best month to go on holiday?
2. Where is your favourite place to go on holiday?
3. How much do you spend on holiday? (Tick one box)

☐ Less than £500 ☐ More than £800

Results:

1. 22 responded yes and 8 responded no.
2. 2 people said 'beach'. The other 28 people each gave a different answer.
3. 6 ticked 'less than £500' and 24 ticked 'more than £800'

Conclusions:

1. August is the favourite month to go on holiday.
2. The beach is the favourite place to go on holiday.
3. Most people spend more than £800 a week when on holiday.

Discuss whether or not the questions on Naomi's questionnaire are appropriate and whether or not the results can be used to support Naomi's conclusions.

6 marks)

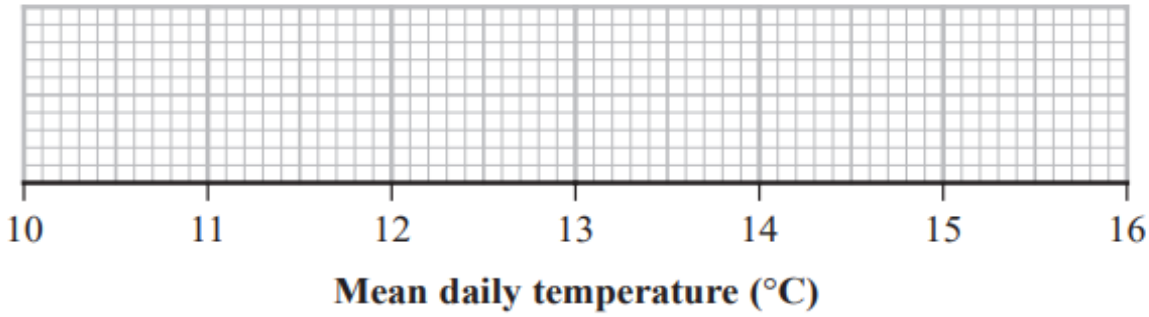
Aminah collected information about the mean daily temperature, in °C, in August in Scotland for the years 1910 to 2018

The table shows a summary of the data produced by statistical software.

n	109
Mean	12.7
Minimum	10.2
Lower quartile	12.1
Median	12.7
Upper quartile	13.3
Maximum	15.4

(Source: *https://www.metoffice.gov.uk/climate/uk/summaries/datasets*)

(a) On the grid below, draw a box plot for the information in the table.



(3)

(b) Calculate the interquartile range for the data in the table.
You must show your working.

(2)

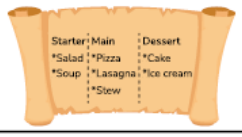
(c) Describe the skew of the distribution represented by the box plot.
Give a reason for your answer.

(2)

Subject Information — Statistics

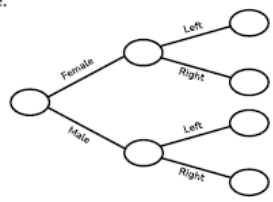
Combinations

How many different 3 course meals can be composed from these menu options?



Frequency trees

In a survey of 220 people, out of 108 females 97 were right-handed. There were 14 left-handed males. Use this information to complete the frequency tree.



Relative frequency

Nell tested a coin to see whether it was fair. Here are the results of the experiment:

Heads	Tails
32	28

What is the relative frequency of the coin landing on tails?

Describing probability

1) Describe the probability of each event using words:

a) A square picked at random on a chess board will be white.

b) You will visit Mars this week.

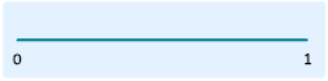
c) The number when a dice is rolled will be greater than one.

2) Mark each event on the probability scale.

A: P(heads on an unbiased coin)

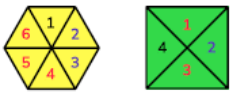
B: P(6 on a fair dice)

C: P(the sun will rise tomorrow)



Calculating probability

The yellow and green spinners are used simultaneously.



a) What is the probability of getting an even number on both spinners?

b) What is the probability of getting a purple number on both spinners?

Sample space

Two 6-sided dice are rolled and their scores added together.

a) Complete the sample space to represent this.

b) When the two dice are rolled, what is the probability of scoring a total that is a multiple of three?

+	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						

Independent events

A bag contains 3 red chips, 2 blue chips and 4 green chips. A chip is drawn, its colour recorded and replaced, then a second chip is drawn.

a) What is the probability of getting a red chip on both draws?

b) What is the probability of getting a different colour chip on each draw?

Dependent events

A bag of sweets contains 6 mints, 4 toffees and 10 chocolates. A sweet is taken and eaten, then a second sweet is taken.

a) What is the probability of getting a toffee twice?

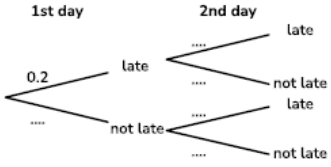
b) What is the probability of getting a mint and a chocolate?

Probability trees

The probability that Pol is late for work is 0.2. Complete the probability tree and calculate,

a) P(not late both days)

b) P(late only once)

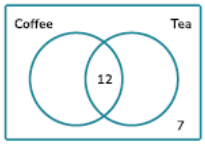


Venn diagrams

In a survey of 32 people, 20 people liked coffee. 7 people did not like coffee or tea.

a) Fill in the missing values in the Venn diagram.

b) Calculate the probability that someone likes coffee but not tea.



Measures of Central Tendency & Spread

Given the data 2, 4, 5, 8, 8, 12, 3, 8, 7, 5

Determine:

a) The median

b) The mode

c) The mean

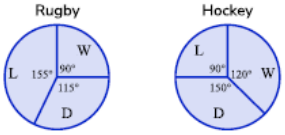
Find the range of each set of data:

a) 4, 13, 8, 7, 4

b) 154, 150.5, 159.3 151.2

Pie Charts

These pie charts show the outcomes of matches for a school's rugby and hockey teams.



The hockey team won 24 matches. How many did they lose?

Which team won more matches? Explain your answer.

Tables

Diz counts the number of occupants in 15 cars that park at the funfair.

Here are the results

2 3 2 4 3

2 3 1 3 4

4 4 2 3 3

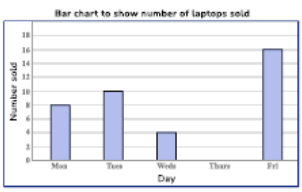
a) Complete the table.

b) What is the modal number of occupants in a car?

Number of occupants	Tally	Frequency
1		
2		
3		
4		

Bar Charts

The shop *IT4U* sold 13 laptops on Thursday. Add this information to the bar chart. How many more laptops were sold on Friday than Wednesday?



Surveys and Sampling

Kai wants to find out how much time students spend using their phone. He uses this question:

How many text messages do you send?

☐ 0 - 10 ☐ 10 - 20

☐ 20 - 30 ☐ 30 - 40

Give two things wrong with this question:

1:

2:

Sev is investigating attitudes towards exercise. He gives a questionnaire to the first twenty men he sees leaving a gym. His sample is biassed; give two possible reasons why.

1:

2:

Scatter Graphs

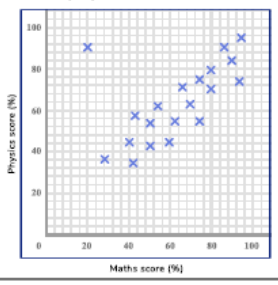
This scatter graph shows how a group of students performed in class tests.

a) Circle the outlier.

b) Describe the correlation between maths score and physics score.

c) Ignoring the outlier, draw a line of best fit through the data.

d) Estimate the maths score if a student scored 60% on the physics test.



Stem and Leaf

This stem and leaf diagram shows the heart rate of some students 10 minutes after completing a fitness test.

KEY: 5 | 7 means 57

a) How many students took the fitness test?

b) What is the range of student heart rates?

c) What is the median heart rate?

4	7 9
5	1 2 8
6	9 9
7	0 1 2 4 8
8	3 3 5

Subject Knowledge Check Statistics

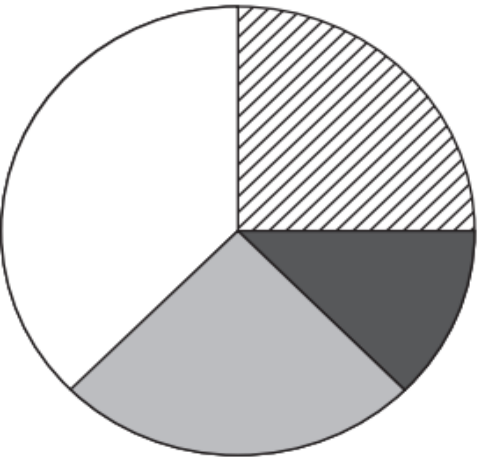
Simas is investigating what students like to do in their spare time.

He collected data by asking the students at a primary school and at a secondary school what they like to do in their spare time.

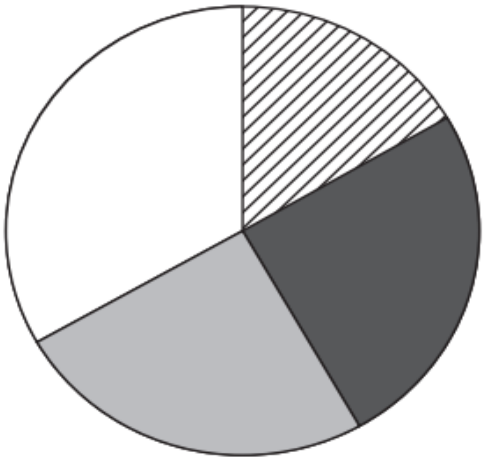
Simas asked each student at the two schools which of reading, watching television, playing computer games or playing outside they like best to do in their spare time.

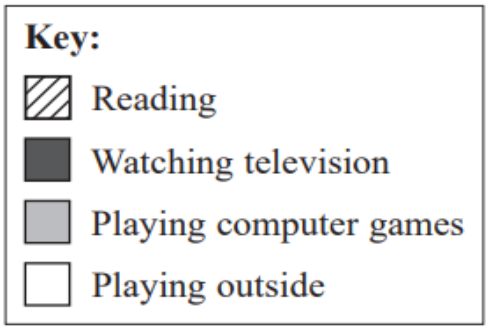
The pie charts show information about the students' answers.

Primary school



Secondary school





(a) What does the pie chart for the primary school students show about what they like best to do in their spare time?
Give one conclusion.

(a) What does the pie chart for the primary school students show about what they like best to do in their spare time?
Give one conclusion.

.....

.....

(1)

(b) Compare what primary school students like best to do in their spare time with what the secondary school students like best to do in their spare time.
Give two comparisons.

1 .....

.....

2 .....

.....

(2)

Subject Information History

American West: Big Story of Migration & Settlement of the West, 1830–95

Exoduster Movement, 1879
- Ex-slaves migrate to the Plains
- Black Americans leave Southern states due to racism, poverty, and post-Civil War hardships
- Benjamin Singleton encourages migration to Kansas
- Kansas seen as 'free land' and welcoming (though not fully true)
- Called an Exodus, like biblical escape from oppression
- By 1879, ~43,000 Exodusters had moved to Kansas
- Faced hostility, governor provided help, but land was tough and costly to farm
- By 1880, many moved on to Nebraska

The Dawes Act, 1887
- Whites had aimed to open Indian Territory since 1830s
- Dawes Act split up tribal lands into 160-acre plots for Native families
- Many Native lands sold to settlers
- Native Americans lost land, often receiving little in return
- Led to Oklahoma Land Rush (1889)

The Oklahoma Land Rush (1889–95)
- Final major migration wave west
- Government opened Indian land to settlers to claim (the 'rush')
- Over 2 million acres available
- By 1895, 7 land rushes had claimed 10 million acres
- Population of Oklahoma grew rapidly, achieved statehood by 1907

Manifest Destiny Achieved
- By late 1800s, American expansion reached the Pacific
- Indian Territory closed, white settlers controlled the West

Key Narratives — Migration & Settlement
- Oregon Trail, 1836 → Economic Depression, 1837 → Mormon Migration, 1846–7 → California Gold Rush, 1849
- Mormon Migration:
  - Promised Land → Winter Quarters → Advance Party → Arrival in Salt Lake Valley
- Government encouragement:
  - Civil War (1861–65) → Homestead Act (1862) → Timber Culture Act (1873) → Desert Land Act (1873)
- Homesteaders' solutions:
  - Railroad (1869) → Barbed Wire (1874) → Red Turkey Wheat (1879) → Dry Farming (1879) → Machinery (1880s)
- Final settlement stages:
  - Dawes Act (1887) → Oklahoma Land Rush (1889) → Closure of Indian Frontier (1890)

Subject Information History

Exam Prompts (8 Marks)

- Explain consequences of the Dawes Act (1887)
- Explain importance of the Exoduster Movement (1879)
- Explain consequences of the Oklahoma Land Rush (1889)
- Write a narrative account of key events of the Exoduster Movement
- Write a narrative account of the Oklahoma Land Rush

Subject Information History

Exam Prompts (8 Marks)

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Subject Information Geography

Subject Information Geography

Subject Knowledge Check Geography

Subject Information Sport

Subject Knowledge Check Sport

Subject Information French

Subject Knowledge Check French

🎉 Hospitality and Catering Unit 1: 50-Question Fun Quiz 🎉

🏢 Section 1: Hospitality and Catering Provision

1. **What is an example of a non-commercial residential provider?**
   A. Hotel
   B. Prison
   C. Café
   D. Restaurant
2. **True or False:** A guest house is a commercial residential provider.
3. **Which of the following is a food service type?**
   A. Suite
   B. Gueridon
   C. Deluxe
   D. Package
4. **Match the establishment to the type:**

1. Restaurant
2. Hospital
3. School canteen
4. Hotel

   a. Non-commercial non-residential
   b. Commercial non-residential
   c. Commercial residential
   d. Non-commercial residential

5. **Name two services usually offered by a hotel.** (Free text)
6. **What star rating system is commonly used for hotels in the UK?**
7. **Which is a method of table service involving food plated in the kitchen?**
   A. Family-style
   B. Plate service
   C. Silver service
   D. Gueridon service
8. **True or False:** Meals on Wheels is a commercial service.
9. **Give one example of a pop-up hospitality venue.**
10. **What is the name for catering provided in workplaces, often subsidised?**

👨‍🍳 Section 2: Employment in Hospitality

11. **What does a sous-chef do?**
    A. Clean rooms
    B. Assist the head chef
    C. Serve drinks
    D. Take bookings
12. **True or False:** A maître d' supervises kitchen staff.
13. **List two personal attributes an employer would value in a hospitality employee.**
14. **Which is a front of house role?**
    A. Kitchen porter
    B. Pastry chef
    C. Receptionist
    D. Cleaner
15. **What kind of contract offers no guaranteed hours?**

🎉 Hospitality and Catering Unit 1: 50-Question Fun Quiz 🎉

16. **Which of these is NOT a kitchen brigade role?**
    A. Executive chef
    B. Valet
    C. Commis chef
    D. Pastry chef
17. **What does a housekeeper typically do in a hotel?**
18. **What kind of pay is received hourly?**
    A. Salary
    B. Wage
    C. Bonus
    D. Pension
19. **Name one qualification route for entering the catering industry.**
20. **True or False:** Seasonal work in hospitality is rare.

📊 Section 3: Business Success Factors

21. **Which of these is an overhead cost?**
    A. Food ingredients
    B. Rent
    C. Chef wages
    D. Kitchen utensils
22. **How does sustainability help hospitality?**
    A. Increases cost
    B. Wastes food
    C. Reduces environmental impact
    D. Causes illness
23. **Define 'gross profit' in simple terms.**
24. **Which is a factor influenced by seasonality?**
    A. Tax rates
    B. Ingredient availability
    C. Wages
    D. Technology
25. **True or False:** Mobile apps are a new trend in hospitality technology.
26. **What rating is awarded by the AA for restaurant quality?**
27. **List two types of media that influence hospitality.**
28. **How can exchange rates affect hospitality businesses?**
29. **Which cost is associated with staff salaries?**
30. **Fill in the blank:** _____ is the ability to reuse materials to reduce waste.

🧯 Section 4: Health and Safety

31. **Which act covers general workplace safety?**
    A. COSHH
    B. Health and Safety at Work Act
    C. Food Hygiene Act
    D. RIDDOR
32. **What does RIDDOR stand for?**
33. **True or False:** PPE stands for Personal Protective Equipment.
34. **Name one piece of documentation used for risk management.**
35. **Who is responsible for staff health and safety training?**
    A. Customer
    B. Employer
    C. Chef
    D. Cleaner

🎉 Hospitality and Catering Unit 1: 50-Question Fun Quiz 🎉

36. **Which regulation relates to hazardous substances?**
37. **True or False:** Accident forms are only filled in for serious incidents.
38. **List one manual handling hazard in a kitchen.**
39. **Which regulation requires suitable clothing to be worn?**
40. **Match the hazard to the control:**

- Hot surfaces
- Wet floors
- Sharp knives

a. Warning signs
b. Use of PPE
c. Safe storage and handling

🥏 Section 5: Food Safety

41. **What does HACCP stand for?**
42. **Which of these is a common cause of food poisoning?**
    A. Salmonella
    B. Sugar
    C. Fibre
    D. Potassium
43. **True or False:** Cross-contamination can lead to food-induced illness.
44. **List two symptoms of food poisoning.**
45. **What does an EHO do during an inspection?**
46. **Which of the following is NOT a food allergen?**
    A. Wheat
    B. Milk
    C. Iron
    D. Peanuts
47. **What's the best storage temperature for chilled food?**
    A. -18°C
    B. 0–5°C
    C. 10–15°C
    D. Room temperature
48. **Give one method to prevent physical contamination in food.**
49. **Who enforces food safety standards in catering premises?**
50. **True or False:** Food intolerance always causes visible symptoms.

Bonus Questions

In the January 2025 paper how many different command words were used across all questions?

In the January 2025 paper what was the most common command word used?

If after completing the quiz, you bring this to VTH for marking and manage to achieve the most correct answers, you will win a Mcdonald's meal for you and a friend.

Subject Knowledge Check

Subject Knowledge Check

Subject Knowledge Check

Subject Knowledge Check

Subject Knowledge Check