



STIRLING TUITION
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Revision Booklet 2

Name: _____

Topic	Completed
Addition Speed Test (5 mins)	
Subtraction Speed Test (5 mins)	
Multiplication Speed Test (5 mins)	
Division Speed Test (5 mins)	
Basic Operations	
Inverse Operations	
Number Work	
Fraction/Decimal/% Equivalents	
Convert Between Fraction/ Decimal/ %	
Doubling/Halving/ $\div 10$ / $\times 10$	
Conversions/ 3D shapes/ Maths Facts	
Multiply/ Divide by 10,100,1000	
Probability	
Time Change	
Perimeter	
Grammar	
Synonyms	
Grammar and Spelling	

The Reasoning behind this booklet

Maths

In maths the **6 pillars** include:

- Times tables
- Basic Operations (with and without decimals)
- Inverse Operations
- Number Work
- Equivalent Fractions/ Decimals/ %
- \times/\div by 10,100,1000, Doubling/ Halving

The booklet starts by practicing these essential maths skills (6 Pillars). These are the foundation that all other maths topics are built upon. **The importance of quick recall of these 6 pillars cannot be stressed enough.** (Like going to the gym, this will only improve with repetition!)

This is followed by an introduction/ explanation to mathematical topics tested in the AQE. This is coupled with practice questions for revision.

English

The English aspects of the test are very predictable in this format.

- Poem Comprehension/ Grammar (9 marks)
- 5 Mistakes Text (5 Marks)
- Poem Comprehension/ Grammar (9 marks)
- Fiction Text Comprehension/ Grammar (9 marks)

From analysis of the past AQE papers the common questions which arise include:

- Identifying noun, adjective, verb, adverb
- Past/ Present Tense
- Singular/ Plural
- Homophones
- Apostrophe use
- Synonyms (www.freerice.com great website to work on synonyms!!!)
- Spelling
- Comprehension

There is an explanation for all the above topics included in the revision booklet, along with practice questions for revision.

The English sections are the **easiest** (not as many topics to revise) **and hardest** (The people who prepare the test have almost unlimited words to choose from!) **to prepare for**. The biggest indicator of success in the English is how much a child reads. This exposes them to a range of vocabulary, sentence structures, knowledge which just cannot be covered solely in school. **Get them Reading!!!**

Reading List

- David Walliams – eg: Demon Dentist, Awful Aunty, Gangster Granny
 - Sir Arthur Conan Doyle - The Lost World, Sherlock Holmes, The Hound of the Baskervilles
 - Arthur Ransome - Swallows and Amazons and other books in this series
 - C.S Lewis – All of the Narnia Series starting with The Lion, The Witch and the Wardrobe
 - Frances Hodgson Burnett - The Secret Garden, A Little Princess
 - William Golding - Lord of the Flies
 - Brian Jacques – Redwall series
 - J.R.R Tolkein - The Lord of the Ring (3 books: The Fellowship of the Ring, The Two Towers, The Return of the King) The Hobbit
 - Mark Twain - The Adventures of Huckleberry Finn, The Adventures of Tom Sawyer George Orwell – Animal Farm
 - Arthur Ransome – Swallows and Amazons series
 - Gerald Durrell – My family and Other Animals, Birds, Beasts and Relatives, A Zoo in my Luggage, Encounters with Animals
 - Malorie Blackman – Noughts and Crosses Trilogy, Tell Me No Lies, Thief, Pig Heart Boy
 - Susan Coolidge – What Katy Did series
 - Roald Dahl books – e.g. The BFG, Charlie and the Chocolate Factory, James and the Giant Peach and others
 - Anthony Horowitz – Granny, Alex Rider series, Stormbreaker
 - Robin Stevens – Murder Most unladylike
 - Anne Holm – I Am David
 - Lucy Montgomery – Anne of Green Gables and other books in this series
 - Daniel Defoe – Robinson Crusoe
 - Laura Ingalls Wilder – Little House on the Prairie series
 - E. Nesbit – The Railway Children, The Phoenix and the Carpet, Five Children and It, The Wouldbegoods, The Treasure Seekers
 - Michael Morpurgo books – e.g. The Butterfly Lion, War Horse, From Hereabout Hill, Why the Whales Came and others
 - Lee Trenton Stewart - The Mysterious Benedict Society and the Perilous Journey, The Mysterious Benedict Society
 - Louis Sachar – Holes
 - Joan Aiken – Wolves of Willoughby Chase series
 - Nina Bawden – Carrie’s War
 - Carolyn Keene – Nancy Drew mysteries
 - Charles Kingsley – The Water Babies
 - Clive King – Stig of the Dump
 - Jonathan Swift - Gulliver’s Travels
 - Robert Louis Stevenson – Treasure Island, Kidnapped
 - Paul Gallico – The Snow Goose, Scruffy
 - Kenneth Graham – The Wind in the Willows
 - Rudyard Kipling – Jungle Book, Just So Stories
 - Eleanor H. Porter – Pollanna
 - R.M. Ballantyne – Coral Island
 - Anna Sewell – Black Beauty
 - Erich Kästner – Emil and the Detectives (good for boy readers)
 - Elizabeth Goudge – The Little White Horse
 - Johanna Spyri – Heidi
 - Noel Stretford – Ballet Shoes, White Boots (good for girl readers)
 - Ian Serraillier – The Silver Sword
 - Derek Landy – Skulduggery pleasant
 - Mary Norton – The Borrowers and other books in this series
 - Louisa May Alcott – Little Women
 - Lewis Carroll – Alice in Wonderland
 - Hugh Lofting – Dr Dolittle
 - Eva Ibbotson - The Star of Kazan
 - Eoin Colfer - Artemis Fowl series of books
 - Richard Adams – Watership Down
 - Richmal Crompton - Just William books
 - E.B. White – Charlotte’s Web
 - Jules Verne – Journey to the Centre of the Earth, Around the World in 80 days
- Robert O’Brian – Mrs Frisby and the Rats of Nimh series of books
 - Anne Fine books – e.g. The Flour Babies, Madame Doubtfire
 - James Herriot - All Creatures Great and Small
 - Yan Martel – The Life of Pi
 - Mark Haddon - The Curious Incident of the Dog in the Night Time
 - Charlotte Bronte – Jane Eyre
 - H.G. Wells – The Time Machine
 - Charles Dickens – A Christmas Carol
 - D Adams - The Hitchhiker’s Guide to the Galaxy
 - J.K. Rowling – Harry Potter series of books
 - John Boyne – Boy in the Striped Pyjamas
 - Eva Ibbotson - The Star of Kazan
 - Jenny Nimmo – Children of the Red King series of books (Charlie Bone)
 - Helen Dunmore - Ingo adventures series of books
 - Terry Deary – The Fire Thief Fight Back
 - Kate DiCamillo - The Miraculous Journey of Edward Tulane
 - Snicket, Lemony - A Series of Unfortunate Events series of books
 - Jeanne Birdsall - The Penderwicks
 - T.H. White – The Sword in the Stone
 - Philipa Pearce – Tom’s Midnight Garden
 - Susan Coolidge – What Katy Did Next
 - Dick-King Smith books – e.g. The Crowstarver, The Sheep Pig
 - Ted Hughes – How the Whale Became, The Iron Man
 - Robert Muchamore – Cherub book series

Subtraction Speed Test (5 minutes)

Time: _____

Score: _____/100

$$\begin{array}{r} 14 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 18 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 16 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 16 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 19 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 15 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 15 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 13 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 17 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 11 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 15 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 16 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 19 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 11 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 11 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 17 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 17 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 11 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 15 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 17 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 19 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 19 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 15 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 17 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 11 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 17 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 19 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 19 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 18 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 18 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 16 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 18 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 16 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 16 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ - 4 \\ \hline \end{array}$$

Division Speed Test (5 minutes)**Time:** _____**Score:** _____/100

$18 \div 6 =$	$55 \div 5 =$	$24 \div 6 =$	$20 \div 10 =$	$11 \div 1 =$
$49 \div 7 =$	$10 \div 10 =$	$18 \div 3 =$	$8 \div 1 =$	$48 \div 12 =$
$10 \div 2 =$	$84 \div 7 =$	$63 \div 9 =$	$40 \div 8 =$	$60 \div 5 =$
$33 \div 11 =$	$60 \div 12 =$	$36 \div 4 =$	$18 \div 2 =$	$27 \div 3 =$
$12 \div 4 =$	$66 \div 6 =$	$12 \div 1 =$	$22 \div 11 =$	$40 \div 5 =$
$33 \div 3 =$	$88 \div 8 =$	$72 \div 12 =$	$8 \div 8 =$	$132 \div 11 =$
$120 \div 10 =$	$12 \div 2 =$	$36 \div 12 =$	$72 \div 8 =$	$36 \div 6 =$
$108 \div 9 =$	$5 \div 1 =$	$80 \div 10 =$	$22 \div 2 =$	$72 \div 9 =$
$99 \div 9 =$	$56 \div 7 =$	$30 \div 10 =$	$7 \div 1 =$	$72 \div 6 =$
$6 \div 2 =$	$42 \div 7 =$	$56 \div 8 =$	$96 \div 12 =$	$15 \div 3 =$
$81 \div 9 =$	$12 \div 12 =$	$110 \div 10 =$	$4 \div 2 =$	$30 \div 3 =$
$12 \div 6 =$	$4 \div 1 =$	$30 \div 6 =$	$42 \div 6 =$	$44 \div 11 =$
$6 \div 3 =$	$2 \div 1 =$	$18 \div 9 =$	$8 \div 2 =$	$24 \div 2 =$
$15 \div 5 =$	$11 \div 11 =$	$24 \div 8 =$	$9 \div 3 =$	$40 \div 10 =$
$20 \div 4 =$	$90 \div 10 =$	$121 \div 11 =$	$5 \div 5 =$	$45 \div 9 =$
$63 \div 7 =$	$21 \div 7 =$	$77 \div 11 =$	$110 \div 11 =$	$40 \div 4 =$
$24 \div 4 =$	$14 \div 7 =$	$16 \div 8 =$	$60 \div 10 =$	$99 \div 11 =$
$4 \div 4 =$	$55 \div 11 =$	$48 \div 6 =$	$64 \div 8 =$	$7 \div 7 =$
$9 \div 9 =$	$120 \div 12 =$	$88 \div 11 =$	$9 \div 1 =$	$48 \div 8 =$
$50 \div 5 =$	$28 \div 7 =$	$70 \div 10 =$	$6 \div 1 =$	$30 \div 5 =$

Basic Operations Speed Test

Addition

1) $3487 + 326 =$ _____

2) $9867 + 429 =$ _____

Subtraction

3) $4596 - 236 =$ _____

4) $6253 - 843 =$ _____

Multiplication

5) $34 \times 29 =$ _____

6) $87 \times 54 =$ _____

Division

7) $835 \div 5 =$ _____

8) $753 \div 3 =$ _____

Addition

9) $7532 + 8291 =$ _____

10) $9542 + 8521 =$ _____

Subtraction

11) $9747 - 295 =$ _____

12) $2524 - 658 =$ _____

Multiplication

13) $45 \times 28 =$ _____

14) $94 \times 29 =$ _____

Division

15) $9535 \div 5 =$ _____

16) $872 \div 4 =$ _____

Inverse Operations Speed Test**Addition**

- 1) _____ + 94 = 589
- 2) 2374 + _____ = 8246

Subtraction (Be careful if the second number is missing in subtraction!)

- 3) 7252 - _____ = 6873
- 4) _____ - 486 = 1946

Multiplication

- 5) 9 x _____ = 558
- 6) _____ x 6 = 252

Division (Be careful if the second number is missing in division!)

- 7) 48 ÷ _____ = 8
- 8) _____ ÷ 2 = 4289

Addition

- 9) _____ + 1800 = 4747
- 10) 7462 + _____ = 8407

Subtraction (Be careful if the second number is missing in subtraction!)

- 11) 9264 - _____ = 9091
- 12) _____ - 2191 = 391

Multiplication

- 13) _____ x 8 = 376
- 14) 9 x _____ = 243

Division (Be careful if the second number is missing in division!)

- 15) _____ ÷ 5 = 1999
- 16) 63 ÷ _____ = 9

Number Work Speed TestSquare Numbers (First 12)

Cubed Numbers (First 5) Triangular Numbers (First 5)

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Factors of 24 (8)Prime Numbers (First 10)

Multiples of 13 (First 5)

Equivalent Fraction, Decimal, % Speed Test

Fractions	Decimals	Percentages (%)
$\frac{1}{2}$	0.5	
$\frac{2}{2} = 1$	1	
$\frac{1}{4}$	0.25	
$\frac{2}{4} = \frac{1}{2}$	0.5	
$\frac{3}{4}$	0.75	
$\frac{4}{4} = 1$	1	
$\frac{1}{10}$		10%
$\frac{2}{10} = \frac{1}{5}$		20%
$\frac{3}{10}$		30%
$\frac{4}{10} = \frac{2}{5}$		40%
$\frac{5}{10} = \frac{2}{4} = \frac{1}{2}$		50%
$\frac{6}{10} = \frac{3}{5}$		60%
$\frac{7}{10}$		70%
$\frac{8}{10} = \frac{4}{5}$		80%
$\frac{9}{10}$		90%
$\frac{10}{10} = 1$		100%
$\frac{1}{3}$	0.33...	
$\frac{2}{3}$	0.66...	
$\frac{3}{3} = 1$	1	

Convert Between Fractions, Decimals and Percentages

Refer to Video Tutorial found at:

<https://www.facebook.com/stirlingtuition2017/videos/404719069999568/>

Convert Decimal to Percent

$0.48 =$

$0.21 =$

$0.14 =$

$0.1 =$

$0.46 =$

$0.67 =$

Convert Percent to Decimal

$53 \% =$

$29 \% =$

$76 \% =$

$37 \% =$

$15 \% =$

$68 \% =$

Convert Decimal to Fraction

$0.4 =$

$0.62 =$

$0.29 =$

$0.43 =$

$0.38 =$

$0.34 =$

Convert Fraction to Decimal

$\frac{5}{20} =$

$\frac{12}{50} =$

$\frac{11}{20} =$

$\frac{14}{20} =$

$\frac{5}{10} =$

$\frac{20}{25} =$

Convert Fraction to Percent

$\frac{46}{50} =$

$\frac{17}{20} =$

$\frac{14}{50} =$

$\frac{5}{10} =$

$\frac{1}{10} =$

$\frac{18}{20} =$

Convert Percent to Fraction

$14 \% =$

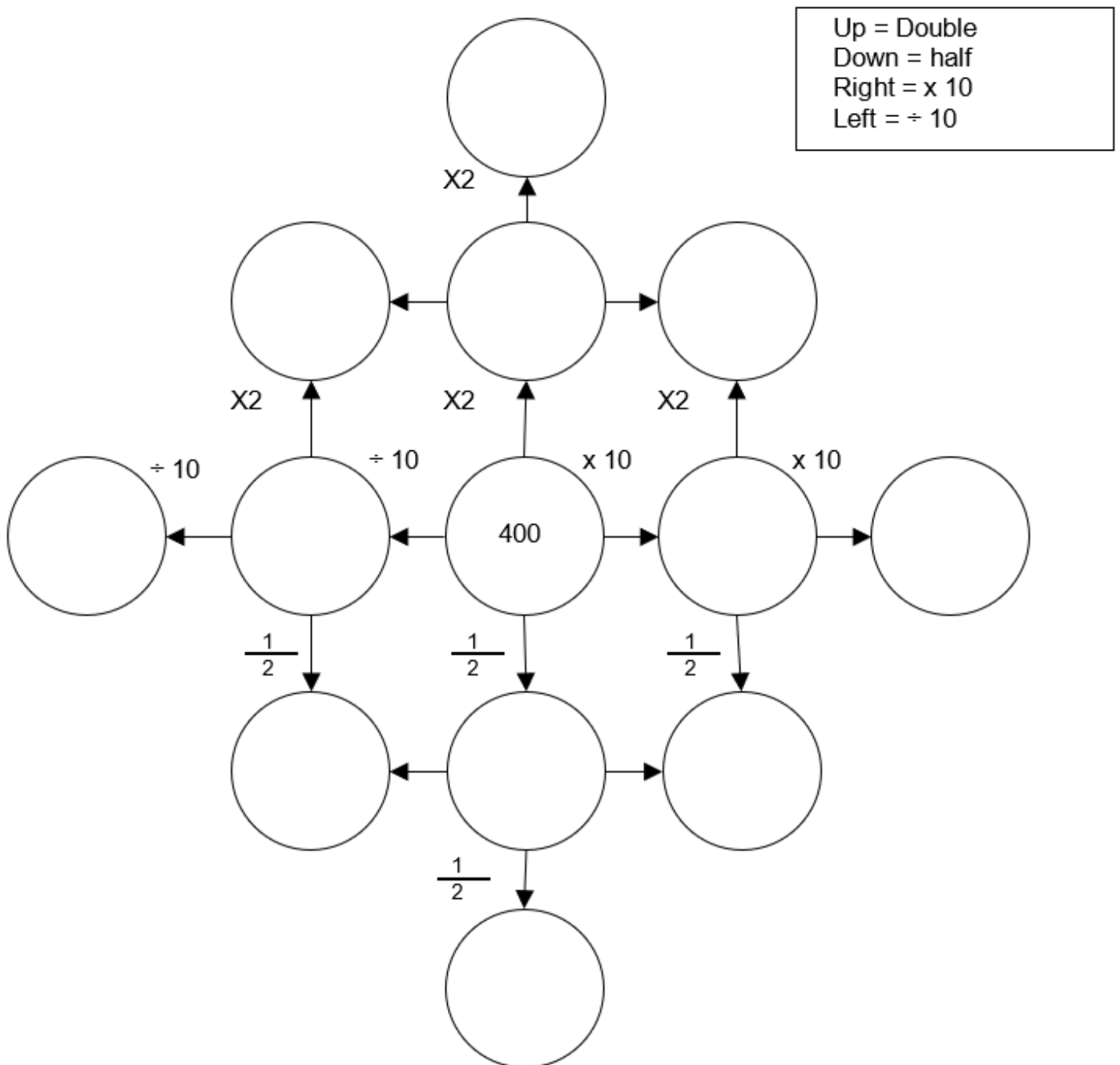
$17 \% =$

$82 \% =$

$60 \% =$

$45 \% =$

$64 \% =$

Doubling/ Halving/ $\div 10$ / $\times 10$ Speed Test

Conversions of Measures

_____ Kilogram (kg)	4700 grams (g)
_____ Litre (L)	8400 millilitres (ml)
_____ Kilometer (km)	3400 meters (m)
_____ meter (m)	9200 millimeters (mm)
_____ meter (m)	420 centimeters (cm)
_____ centimeter (cm)	76 millimeters (mm)

3D Shapes Table

Shape	Faces	Edges	Vertices
Cube			
Cuboid			
Triangular Prism			
Cylinder			
Square based Pyramid			
Triangular based pyramid			
Sphere			
Cone			

Maths Facts

How do work out the area of a triangle? _____

What is the size of an angle in a Full Circle = _____

What is the size of an angle on a straight-line = _____

What is the size of the angles in Triangle = _____

What is a quadrilateral? _____

What is the size of the angles in a quadrilateral = _____

What does Percent mean? _____

How do you work out the fraction of a number? _____

How do you work out volume? _____

Multiply and Divide by 10,100,1000

1) $7 \div 10$

Answer: _____

2) 44×1000

Answer: _____

3) $6.5 \div 10$

Answer: _____

4) 42×10

Answer: _____

5) $27 \div 10$

Answer: _____

6) 25×100

Answer: _____

7) $28 \div 1000$

Answer: _____

8) 9×100

Answer: _____

9) $8 \div 1000$

Answer: _____

10) 20×10

Answer: _____

11) $5 \div 100$

Answer: _____

12) 39×10

Answer: _____

Probability

Explanation of Probability:

Probability is basically the chances of an event happening. The best way to tackle any probability question is to work out the chances of each event happening by working out the **fraction for each event** in the question.

Examples:

1. Sam is playing with some dice. He rolls **one** of the dice. Look at the four possible outcomes below.

Outcome A: Sam rolls a 1 or 2

Outcome B: Sam rolls an even number

Outcome C: Sam rolls a 2

Outcome D: Sam rolls a number which is not 1 or 6

$A = 2/6$ (Now it's easy to order!)

$B = 3/6$

$C = 1/6$

$D = 4/6$

Put the four outcomes in order from the **least likely to most likely**. Write a letter in each of the spaces below. The least likely outcome has been done for you.

$\frac{\underline{C}}{\text{(least likely)}}$ $\frac{\underline{A}}{\quad}$ $\frac{\underline{B}}{\quad}$ $\frac{\underline{D}}{\text{(most likely)}}$

1. Look at the **6 cards** below. **Each card has a number on it.**

4
8
2
25
12
13

The cards are placed in a box and the **box is shaken** so that the **cards get mixed up**. I choose a card **at random** and read the number on it. Look at the following five statements:

A: The number is a **square number**.

B: The number is **negative**.

C: The number is a **factor of 12**.

D: The number is **less than 25**.

E: The number is **25 or less**.

$A = 2/6$ (Now it's easy to order!)

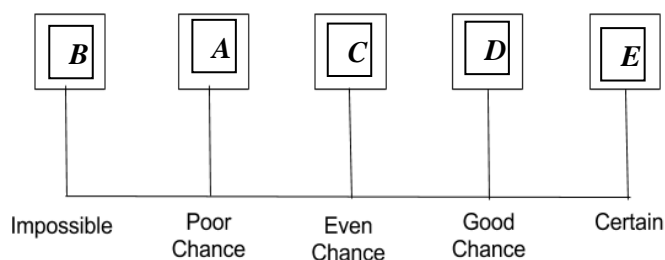
$B = 0/6$

$C = 3/6$

$D = 5/6$

$E = 6/6$

Write the **letters A to E** in the correct box on the probability line below.



Probability Reminder: Work out Fraction for each event.

1. John is playing with some dice. He rolls **one** of the dice. Look at the four possible outcomes below.

Outcome A: John rolls a 4, 2 or 1

Outcome B: John rolls an odd number apart from 5

Outcome C: John rolls a 2 or more

Outcome D: John rolls a number which more than 5

Put the four outcomes in order from the **least likely to most likely**. Write a letter in each of the spaces below. The least likely outcome has been done for you.

 (least likely) (most likely)

2. Look at the **6 cards** below. **Each card** has a **number on it**.

3

9

12

15

18

21

The cards are placed in a box and the **box is shaken** so that the **cards get mixed up**. I choose a card **at random** and read the number on it. Look at the following five statements:

A: The number is a **triangular number**.

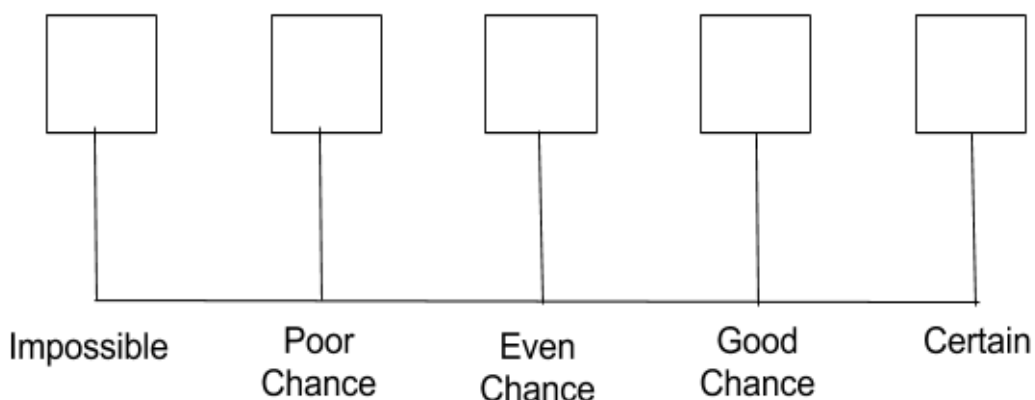
B: The number is **multiple of 3**.

C: The number is a **prime number**.

D: The number is **more than 9**.

E: The number is **negative**.

Write the **letters A to E** in the correct box on the probability line below.



3. A letter is chosen at random from the letters of the word

S C I N T I L L A T I N G

Look at the **3 statements** below. Tick **True** or **False** for each statement.

The letter chosen is **most likely** to be **C**.

The letters **N** and **L** have an **equal probability**.

There is a **greater chance** of choosing letter **T** than **G**.

True **False**

4. **Boxes A, B** and **C** contain chocolates. There are **3 types** of chocolate: **dark, milk** and **white**. The number of chocolates in each box is:

Box A	Box B	Box C
3 Dark	4 Dark	7 Dark
9 Milk	6 Milk	3 Milk
2 White	2 White	4 white

I choose a chocolate at random from each box. For one of the boxes the **chance** of picking a **milk** chocolate is an even chance. **Which box?** Write the correct **A, B** or **C** in the space below.

Box _____

5. John has **10 socks** in a drawer. **5 socks** are **black**, **2 socks** are **red** and **the rest are white**. He **picks** out a **sock at random** from the drawer. Look at the **five outcomes** below.

- Outcome A: Ruth picks a **black or red** sock
- Outcome B: Ruth picks a **green** sock
- Outcome C: Ruth picks a **white** sock
- Outcome D: Ruth picks a **red** sock
- Outcome E: Ruth picks a **black** sock

Put the **five outcomes in order** from **impossible** to **most likely** by writing the correct **letter** in each of the spaces below. The outcome **A** has been written for you.

_____ A _____
 (Impossible) (Most Likely)

Time Change

Explanation of Time Change

Children need to be able to quickly change between 24-hour clock and 12-hour clock.

Examples:

13:42 = 1:42pm 9:16am = 09:16 12:52am = 00:52 8:31pm = 20:31

There are generally **3 types** of time questions:

- 1) Start time + Duration = End time
- 2) End time – Duration = Start time
- 3) Start time to end time = Duration

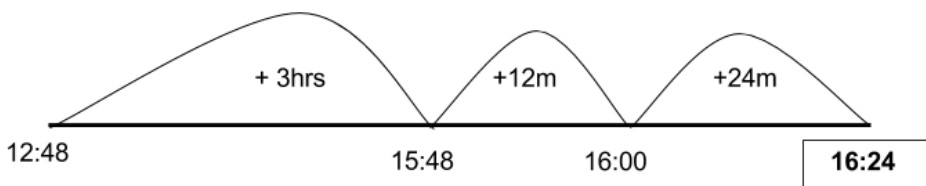
The best method to use is a time line, as it works for all different types of time change questions.

Examples:

Start Time: 12:48
 Duration: 3 hours 36 mins

36
<u>-12</u>
24

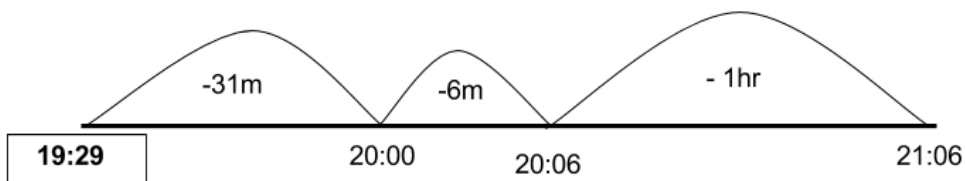
End Time: 16:24



End Time: 21:06
 Duration: 1 hours 37 mins

37	60
-06	-31
31	29

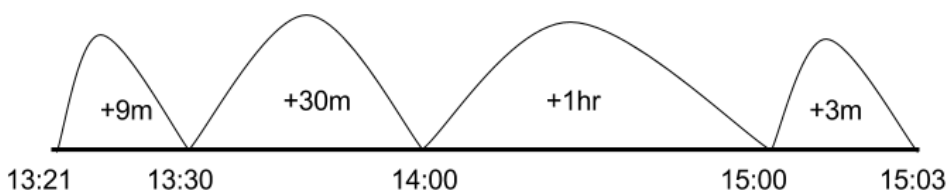
Start Time: 19:29



Start Time: 13:21
 EndTime: 15:03

(Add all the minutes first)

Duration: 1hr 42 mins $9m + 30m + 3m = 42m + 1h = 1h 42m$



Convert between 12-hour and 24-hourConvert between 24-hour clock and 12-hour

11:16 AM -> _____ 11:13 PM -> _____ 13:21 -> _____ 00:00 -> _____

3:47 PM -> _____ 12:00 AM -> _____ 05:48 -> _____ 20:29 -> _____

8:17 AM -> _____ 3:52 AM -> _____ 21:25 -> _____ 12:00 -> _____

12:00 PM -> _____ 6:58 AM -> _____ 16:37 -> _____ 17:27 -> _____

10:58 PM -> _____ 8:37 PM -> _____ 18:16 -> _____ 19:40 -> _____

	Start time	End time	Time taken	Position
Sam	11:44	15:38		
Oliver	10:38	14:53		
Isla	10:57		4 hours 12 minutes	
Craig	11:39		3 hours 42 minutes	
Millan		16:29	2 hours 16 minutes	
Daniel	11:17	16:28		
Tami		17:16	3 hours 38 minutes	
Keira		17:04	4 hours 9 minutes	

1. Sam wakes up on Monday at **8:26 am**. He has been asleep for **7 hours and 19 minutes**. At what time on Monday did he **fall asleep**? Write your answer, using the **24-hour clock**, in the space below.

2. Each **half** of a football match lasts **45 minutes**. The **half-time break** lasts **15 minutes**. **Extra time** is **added** for delays. The football match **starts** at **12:30** and **finishes** at **14:22**. **How much extra time** was added? Give your answer in **minutes**. Write your answer in the space below.

_____ minutes

3. Sam drove to Bangor. He spent **39 minutes** in Bangor. Sam **left** Bangor at **9:19 pm**. When did he arrive in Bangor? Give your answer as a **24-hour clock time**. Write your answer in the space below.

4. Look at the train timetable below:

Stop	Train 1	Train 2	Train 3
Bangor	07:42	08:12	08:42
Bangor West	07:49	08:18	08:50
Carnalea	07:57	08:28	09:01
Helen's Bay	08:03	08:37	09:04
Cultra	08:12	08:46	09:08

a) Ruth lives in **Bangor** and her work is a **10-minute walk from Carnalea** Train Station. She needs to be in work for **08:40**. Which is the latest train she can catch so she is not late? Write your answer in the space below.

Train _____

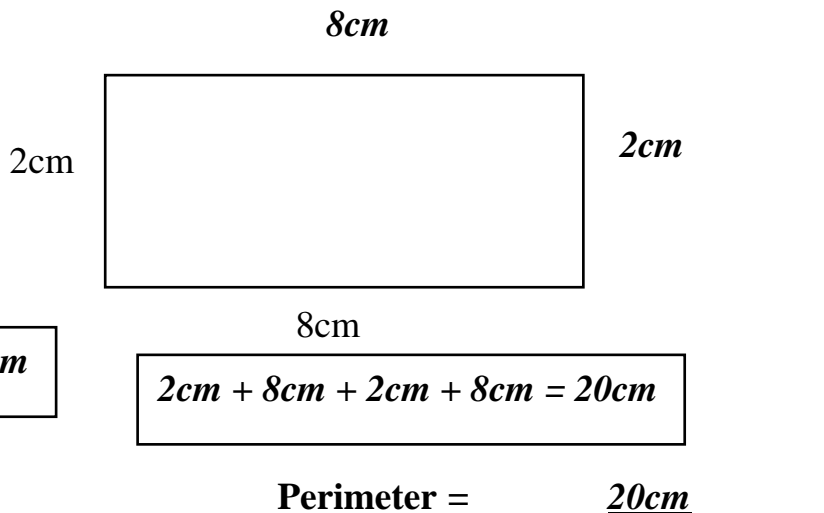
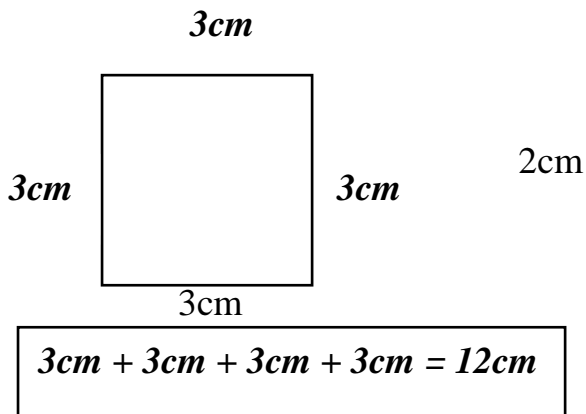
b) Look again at the train timetable above. What is the **total time** it takes the **three trains** to travel from **Bangor to Bangor West**? Write your answer below.

_____ minutes

Explanation of Perimeter of Shapes (Squares/ Rectangles):

To work out the perimeter of a shape add **ALL** the sides of the shape.

Example:



Perimeter = 12cm

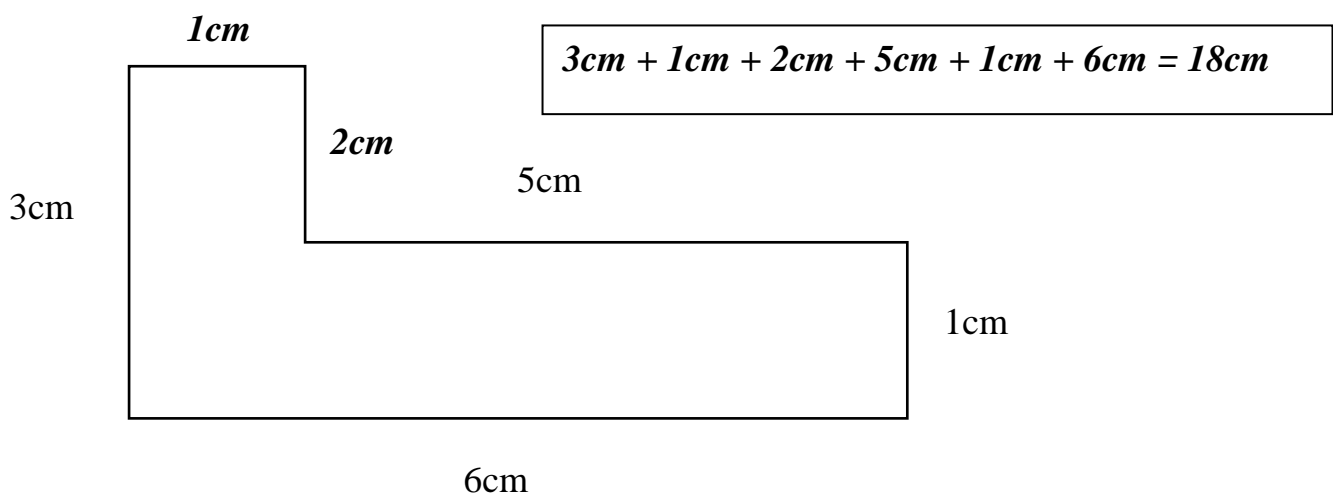
Perimeter = 20cm

Perimeter Reminder: Add

Compound Shape Perimeter:

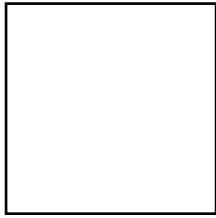
- 1) Find the missing lengths (**Tip: All the horizontal lines are connected; all the vertical lines are connected**).
- 2) Add **ALL** the sides together.

Example:



Perimeter = 18cm

1.



4cm

Perimeter = _____

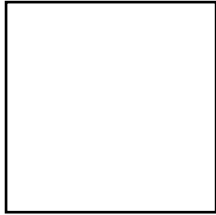
3cm



7cm

Perimeter = _____

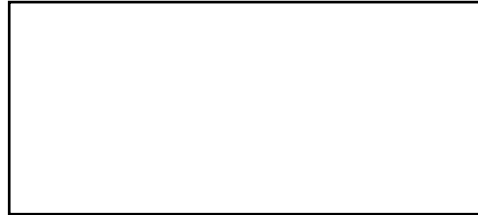
2.



9cm

Perimeter = _____

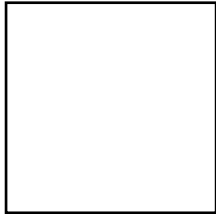
8cm



11cm

Perimeter = _____

3.



6cm

Perimeter = _____

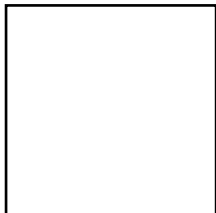
12cm



18cm

Perimeter = _____

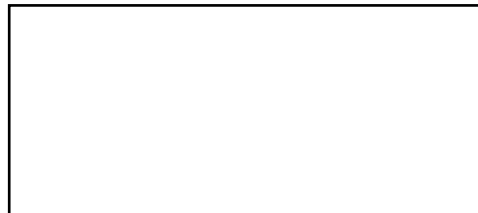
4.



11cm

Perimeter = _____

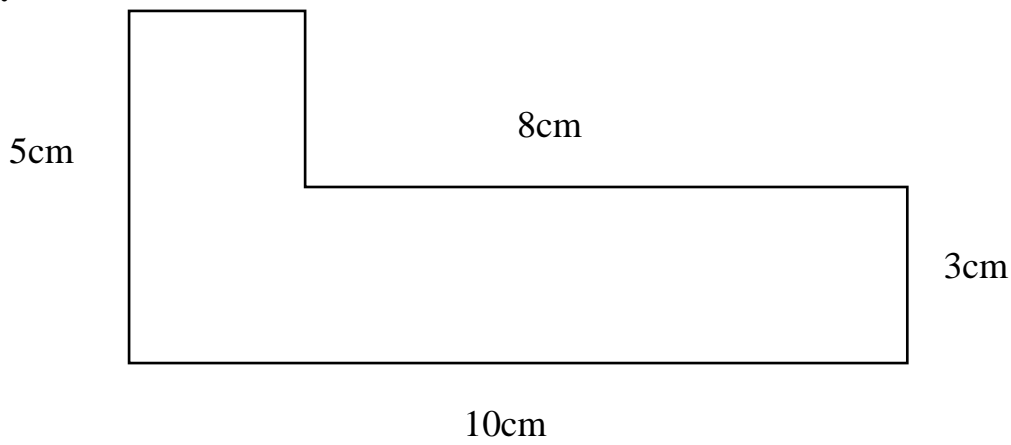
15cm



35cm

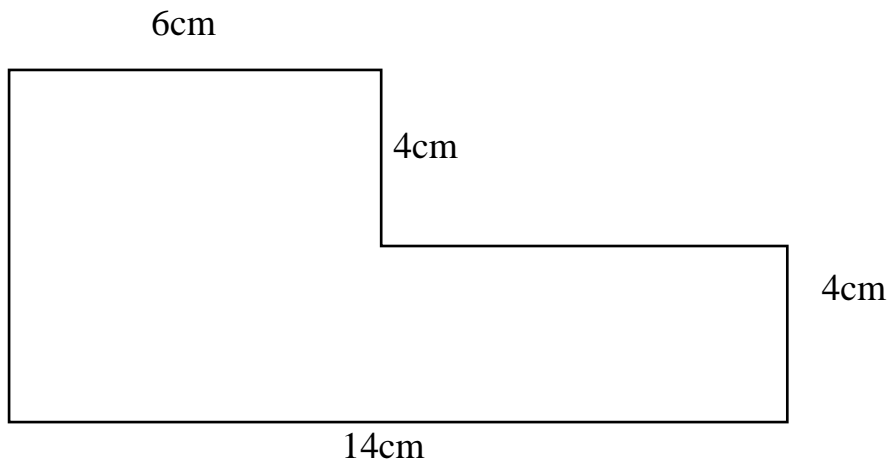
Perimeter = _____

1.



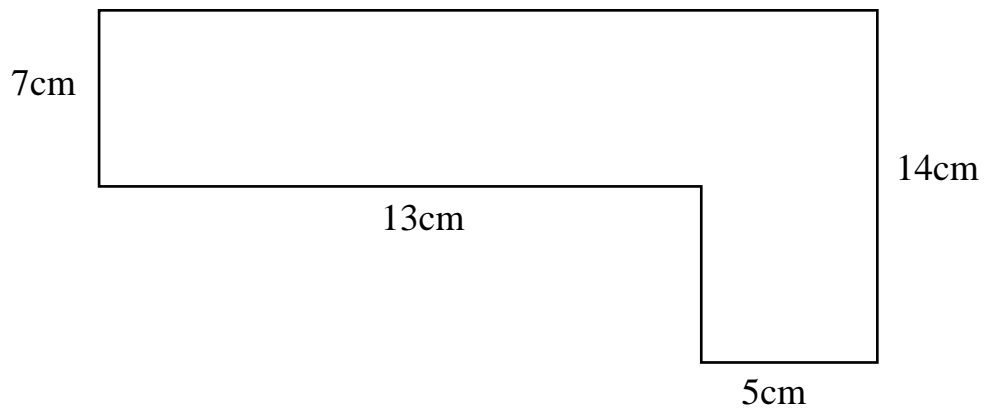
Perimeter = _____

2.



Perimeter = _____

3.



Perimeter = _____

English

Noun:

Person, Place or Thing. E.g.: Sam, Bangor, pencil. Normally these are things you can physically see. There is the exception of **abstract** nouns, which are things, but you can't see them, they are usually feelings or ideas e.g.: courage, happiness etc.

Adjective:

Describes a noun. E.g.: red (adjective) car (noun), happy (adjective) boy (noun), small (adjective) country (noun).

Verb:

Doing/ action word. E.g.: run, play, skip, hold, give, clap, swim etc.

Adverb:

Describes a verb/ action. (Or how you do something.) E.g.: run (verb) quickly (adverb), play (verb) carefully (adverb), skip (verb) leisurely (adverb), clap (verb) loudly (adverb).
Normally adverbs end in 'ly'.

However, there are times when adverbs don't end in 'ly'. E.g.: run (verb) tomorrow (adverb), play (verb) today (adverb), skip (verb) here (adverb), clap (verb) seldom (adverb).

Nouns, Adjectives, Verbs and Adverbs: Understanding context

It is essential that the child understands that the same word can have **different meanings and uses.**

E.g. the word can

Used as a verb: I can play the piano.

Used as a noun: A can of worms.

It is essential that the child can identify the correct definition and use (noun, adjective, verb, adverb) **as it appears in the text.**

Past/ Present Tense

This skill relates to verbs. E.g.: run (Present) ran (Past), clap (present) clapped (past).

Tip: It is best to put yourself in the situation to get the word in the past (**Yesterday I...**) or present (**now**). **E.g.:** I run (present/ **now**), **Yesterday I** ran (past).

Also in the past tense some words are spelled differently or change completely

e.g. skip – skipped
go – went
clap – clapped
see – saw

Plurals Rules

1. Add s

book	books
dog	dogs

2. If the noun **ends in s, x, ch or sh** (hissing sounds) you **add es**

church	churches
fox	foxes
glass	glasses
brush	brushes

3. If the noun **ends in y** and the **letter before is a vowel**, you **add s**

key	keys
boy	boys

4. If the noun **ends in y** and the **letter before is not a vowel**, you **change y to i and add es**

lady	ladies
fairy	fairies

5. Of the noun **ends with f or fe**, you **take the f or fe away and add ves**

calf	calves
wife	wives

But there are exceptions – these need to be learned and remembered.

Exceptions

chief	chiefs
dwarf	dwarfs/dwarves
hoof	hoofs/hooves
reef	reefs
roof	roofs/rooves
scarf	scarf/scarves

6. If the noun **ends in double ff**, you just **add s**

cliff	cliffs
puff	puffs

7. If the noun **ends in o**, you **add es**

potato	potatoes
echo	echoes

But there are exceptions – these need to be learned and remembered.

Exceptions

banjo	banjos
cuckoo	cuckoos
halo	halos
igloo	igloos
kangaroo	kangaroos
photo	photos
piano	pianos
radio	radios
solo	solos
studio	studios
zoo	zoos

8. Words which **do not change**

cod
deer
dice
fish
fruit
moose
salmon
sheep
species
squid
trout

9. Words which **change completely**

child	children
foot	feet
goose	geese
man	men
mouse	mice
ox	oxen
person	people
tooth	teeth
woman	women

Homophones

Words which sound the same but have different meanings or spelling. E.g.: week – weak, son – sun, sea – see, their – there – they’re, meet – meat, cell – sell.

Apostrophes

These are used for **possession** and **omission**.

Possession: Apostrophes are used to tell us that something belongs to someone. E.g.: If you were talking about a football belonging to Sam, you would say ‘Sam’s football’. (The football belongs to Sam)

There is only one of Sam, so this is called **singular possession**.

The girl’s hat, John’s car. In these examples there is ONE girl owns ONE hat and John owns ONE car.

If there are **two or more people** owning something, an apostrophe is needed to show **plural possession**.

In this case **the apostrophe goes after the plural owners**, so if a group of girls each own a hat and you want to talk about all these hats, you would say ‘**the girls’ hats, ‘the teachers’ staffroom.**

Tip: Be careful **not** to add apostrophes to **plurals**: E.g.: The dogs ran. Three cars parked.

Omission: If we put two words together and miss out some letters, we need to add an apostrophe where the missing letters are. E.g.: ‘do not’ would change to ‘don’t’, the **contracted form**. These are also called **contraction**. (Squish the words together!)

Synonyms

Words which have the same definition (**Synonym = Same**). E.g.: Happy = cheerful, joyful, delighted. Sad = dejected, miserable, down

Compound Words

This is often worth 2 marks, so a quick recall and understanding of compound words can save time and add points.

E.g. wash + out = washout
out + side = outside

As with everything, extensive reading will help with this task as reading expands the child’s vocabulary and they will be quicker to identify the compound words.

Suffixes and Prefixes

A suffix is something which is added to the **end** of a word:

fear – fear**less**
care - care**ful**

A prefix is something which is added to the start of a word:

understanding – **mis**understanding
certain – **unc**ertain

Antonyms – opposites

These questions are usually worth 2 marks so it is worth going over opposites with the child. Quick recall of opposites will save valuable time when scanning the text for the answers.

Poetic Techniques:

Alliteration: where two or more words, having the same consonant sound, occur close together. E.g. Lazy lizards lying like lumps.

NB be sure that the child understands that alliteration applies to **consonants only!**

(Assonance is the repetition of vowel sounds and, as yet, this has not appeared in the AQE papers, only alliteration).

Onomatopoeia: words which suggest the sounds they refer to. E.g. buzz, chirp, hiss, roar

Rhyme Patterns: identifying the rhyme pattern of a poem

Twinkle, twinkle little star,
How I wonder what you are.
Up above the world so high,
Like a diamond in the sky.

These questions are sometimes worth 2 marks, which should be easy to pick up if the child can identify rhyme patterns easily.

Similes – being able to identify similes

Similes use the words **like and as:**

She sings like an angel
As black as soot
As busy as a bee
He swims like a fish

Spelling – this is tested in the 5 Mistakes Text but **ALSO in the comprehension sections**

With particular reference to:

use of y or i – mith or myth?

Endings - er/ar/or – creator or creater?

al or el – personal or personel?

ent or ant – permanent or permenant?

Double consonants – cc – succeed or succeed?

tt - patern or pattern?

ff – dificult or difficult?

mm – swiming or swimming?

use of ei or ie - theif or thief?

General Grammar Mistakes

Often, there are questions to test whether a child is aware of common grammar mistakes, so it is always best to go know the difference between:

its and it's

its (no apostrophe) possessive: The dog licked its bone.

it's (apostrophe) contraction – shortened version of it is: It's very cold today.

are and our

are – plural and 2nd person singular of the present tense of **the verb be**

They are going to the park.

our – possessive

Would you like to come to our house?

there, they're and their

there – There is a swimming pool in our town.

their – The children collected their coats.

they're – short for they are – They're going to the cinema today.

your and you're

your – Tuck in your shirt!

You're – short for you are – You're going to hurt yourself.

Comprehension

Close reading is essential

The child will be asked to identify whether a statement is true, false or unknown (don't know) based on the text in front of them. Often, the difference between getting the question right or wrong depends on noticing a subtle detail. Therefore, close reading of the questions and the text should be practised.

In Every AQE paper there is two poems and a narrative text. These test comprehension along with all the above skills mentioned in this English section. To improve this aspect of the test there is no substitute for reading. **There is a direct correlation between the success in the comprehension and the amount children read.** (*Refer to reading list at beginning of Booklet*)

Tick the correct word type

	noun	adverb	verb	adjective
fox				
glided				
rosy				
carefully				

Past/ Present Tense

Look at the 4 words below. Write the **present tense** of each of the words in the space provided.

Be careful with your spelling.

had _____
 heard _____
 shook _____
 saw _____

Singular/ Plural

Write the **plural** of each of the words below in the space provided. **Be careful with your spelling.**

fungus _____
 sheep _____
 echo _____
 boy _____

Homophones: Circle the correct homophone for the sentence.

Please put **your/ you're** coat over there.

Whose/ who's coming to the fireworks tonight?

The children are on **their/ there** holidays.

The name of a female sheep is a **you/ ewe**.

Apostrophes: Add the apostrophe to ensure the sentences are grammatically correct.

The man didnt want to go home.

Hes the biggest star in the town.

I think Johns car is red, not green.

The mens changing room is out of order.

Tick the correct word type

	adjective	adverb	verb	noun
football				
bouncy				
float				
awkwardly				

Past/ Present Tense

Look at the 4 words below. Write the **past tense** of each of the words in the space provided.

Be careful with your spelling.

take _____
sweep _____
lie _____
shoot _____

Singular/ Plural

Write the **plural** of each of the words below in the space provided. **Be careful with your spelling.**

kilo _____
life _____
hoof _____
kangaroo _____

Homophones: Circle the correct homophone for the sentence.

Their/ There music isn't that bad.

The Pope lives in **Roam/ Rome**.

There/ They're always late on a Wednesday.

I prefer the **plain/ plane** curtains.

Apostrophes: Add the apostrophe to ensure the sentences are grammatically correct.

Wheres the party?

The girls bag was in the classroom.

The gentlemen didnt appreciate the call.

The boys football match was cancelled.

Tick the correct word type

	adverb	adjective	verb	noun
father				
strict				
write				
eagerly				

Past/ Present Tense

Look at the 4 words below. Write the **past tense** of each of the words in the space provided.

Be careful with your spelling.

become _____
 build _____
 deal _____
 drive _____

Singular/ Plural

Write the **plural** of each of the words below in the space provided. **Be careful with your spelling.**

bus _____
 leaf _____
 pen _____
 watch _____

Homophones: Circle the correct homophone for the sentence.

She has had her teddy **bare/ bear** from the age of 3.

Prince William is the **air/ heir** to the throne.

I'm starting a new job this **week/ weak**.

The doctor will **see/ sea** you right away.

Apostrophes: Add the apostrophe to ensure the sentences are grammatically correct.

I cant wait to go home!

The dogs food was in its bowl.

If it isnt sunny the game will be cancelled.

As the clouds came out the suns rays hit my face.

Synonyms (15 minutes)**(Note: Throughout this section use a thesaurus if required.)****1. Find a second word with a similar meaning to the word in bold:**

- a) **NUISANCE** – which, time, pain, many
- b) **BEMUSED** – confused, write, like, see
- c) **CONSPIRE** – more, come, sound, collude
- d) **DISPUTE** – people, down, debate, find
- e) **FLAMBOYANT** – work, flashy, place, live
- f) **INNOCUOUS** – back, little, round, harmless

2. Write down a synonym for each word:

- | | |
|-------------------|----------------------|
| a) valuable _____ | b) box _____ |
| c) contest _____ | d) domestic _____ |
| e) forbid _____ | f) intense _____ |
| g) obscure _____ | h) provoke _____ |
| i) shrine _____ | j) unsurpassed _____ |

3. Match up the synonyms in the list:

- | | | | |
|--------|---------|----------|---------|
| chilly | sketch | frighten | draw |
| walk | eat | cool | bravery |
| scare | courage | munch | stroll |

4. Can you find four different of **thin? E.g. start with 'slim'**

- | | |
|----------|----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |

Plurals

Write the **plurals** of the following words in the spaces provided. **Remember your plural rules and exceptions.**

game	_____	person	_____
match	_____	dice	_____
boy	_____	hero	_____
penalty	_____	cliff	_____
half	_____		

Opposites

Write the opposites of the following words in the spaces provided.

foolish	_____	wide	_____
rough	_____	quiet	_____
tender	_____	more	_____

Compound Words

Look at the five words below. From this list choose the best word that makes a compound word when written in one of the spaces below. Each word can be used only once.

light side time fly out

some _____
 in _____
 butter _____
 moon _____
 with _____

Suffixes (goes after a word)

Look at the five suffixes below. Match the correct suffix with each word below. Each suffix can only be used once.

ment hood ness less ful

kind	_____	neighbour	_____
thought	_____	peace	_____
enjoy	_____		

Spelling

Look at the five pairs of words below. Circle the correct spelling in each pair.

beleive	believe
foreign	foriegn
receive	recieve
piece	peice
siege	seige

Answers

Page 4

0	6	5	11	17	14	0	1	16	6
+ 5	+ 5	+ 7	+ 6	+ 5	+ 7	+ 4	+ 5	+ 7	+ 7
5	11	12	17	22	21	4	6	23	13
1	15	13	3	2	4	12	6	8	13
+ 3	+ 8	+ 3	+ 7	+ 6	+ 9	+ 6	+ 6	+ 3	+ 5
4	23	16	10	8	13	18	12	11	18
16	7	12	1	2	12	10	15	3	11
+ 3	+ 7	+ 8	+ 9	+ 4	+ 6	+ 8	+ 9	+ 5	+ 7
19	14	20	10	6	18	18	24	8	18
19	13	3	5	18	0	11	15	7	17
+ 8	+ 9	+ 5	+ 8	+ 4	+ 7	+ 9	+ 9	+ 4	+ 4
27	22	8	13	22	7	20	24	11	21
18	4	8	11	19	16	10	8	9	4
+ 9	+ 3	+ 4	+ 9	+ 8	+ 5	+ 9	+ 3	+ 6	+ 6
27	7	12	20	27	21	19	11	15	10
16	14	6	8	19	6	14	18	2	19
+ 8	+ 6	+ 5	+ 4	+ 6	+ 5	+ 6	+ 8	+ 8	+ 6
24	20	11	12	25	11	20	26	10	25
17	4	1	12	14	4	0	10	7	5
+ 5	+ 9	+ 4	+ 4	+ 6	+ 8	+ 4	+ 4	+ 3	+ 5
22	13	5	16	20	12	4	14	10	10
10	9	3	13	1	9	14	16	5	2
+ 4	+ 3	+ 4	+ 5	+ 5	+ 3	+ 3	+ 5	+ 9	+ 7
14	12	7	18	6	12	17	21	14	9
10	3	9	11	12	17	13	18	9	18
+ 3	+ 7	+ 9	+ 3	+ 4	+ 3	+ 8	+ 9	+ 7	+ 4
13	10	18	14	16	20	21	27	16	22
7	15	2	0	5	8	15	19	7	17
+ 7	+ 9	+ 7	+ 3	+ 8	+ 3	+ 8	+ 7	+ 6	+ 6
14	24	9	3	13	11	23	26	13	23

Page 5

14	18	16	16	9	5	9	8	14	7
- 4	- 5	- 8	- 8	- 7	- 3	- 9	- 5	- 7	- 5
10	13	8	8	2	2	0	3	7	2
12	19	8	9	13	9	6	7	15	15
- 6	- 3	- 5	- 4	- 4	- 7	- 6	- 7	- 5	- 7
6	16	3	5	9	2	0	0	10	8
13	17	7	12	9	6	9	6	9	8
- 6	- 4	- 7	- 5	- 9	- 3	- 6	- 3	- 3	- 4
7	13	0	7	0	3	3	3	6	4
10	10	10	8	8	11	15	16	8	9
- 4	- 3	- 7	- 3	- 6	- 9	- 5	- 4	- 4	- 9
6	7	3	5	2	2	10	12	4	0
6	12	5	9	19	11	8	11	14	13
- 4	- 5	- 5	- 3	- 4	- 6	- 3	- 9	- 9	- 8
2	7	0	6	15	5	5	2	5	5
17	3	12	10	17	11	15	17	19	14
- 9	- 3	- 7	- 6	- 3	- 3	- 4	- 9	- 5	- 6
8	0	5	4	14	8	11	8	14	8
9	10	19	8	6	9	7	13	15	12
- 7	- 4	- 5	- 6	- 6	- 7	- 5	- 7	- 7	- 8
2	6	14	2	0	2	2	6	8	4
18	13	17	11	17	8	19	19	10	18
- 4	- 3	- 8	- 8	- 4	- 3	- 7	- 3	- 4	- 7
14	10	9	3	13	5	12	16	6	11
3	18	6	16	14	18	8	12	16	8
- 3	- 3	- 6	- 8	- 9	- 7	- 5	- 6	- 5	- 5
0	15	0	8	5	11	3	6	11	3
15	13	5	8	9	6	16	6	14	4
- 7	- 8	- 4	- 4	- 3	- 5	- 4	- 3	- 5	- 4
8	5	1	4	6	1	12	3	9	0

Page 6

3	1	4	7	10	3	10	10	10	12
x 7	x 1	x 4	x 12	x 7	x 11	x 6	x 7	x 5	x 12
21	1	16	84	70	33	60	70	50	144
7	11	11	1	12	5	9	10	12	1
x 3	x 2	x 4	x 12	x 3	x 5	x 6	x 10	x 7	x 6
21	22	44	12	36	25	54	100	84	6
7	8	6	8	1	12	6	11	5	2
x 4	x 8	x 8	x 9	x 7	x 4	x 12	x 3	x 8	x 9
28	64	48	72	7	48	72	33	40	18
11	12	3	5	5	6	3	11	10	1
x 12	x 5	x 2	x 7	x 11	x 3	x 10	x 7	x 7	x 8
132	60	6	35	55	18	30	77	70	8
9	12	4	1	9	3	7	3	8	1
x 8	x 5	x 4	x 4	x 10	x 5	x 9	x 7	x 2	x 7
72	60	16	4	90	15	63	21	16	7
1	12	11	2	4	11	10	8	1	8
x 5	x 9	x 1	x 1	x 3	x 10	x 12	x 5	x 8	x 10
5	108	11	2	12	110	120	40	8	80
10	7	8	3	8	3	8	7	3	7
x 1	x 8	x 2	x 4	x 2	x 11	x 3	x 3	x 9	x 5
10	56	16	12	16	33	24	21	27	35
8	5	1	11	11	6	12	12	11	9
x 2	x 6	x 8	x 12	x 12	x 5	x 6	x 9	x 6	x 9
16	30	8	132	132	30	72	108	66	81
2	6	9	6	3	5	3	4	2	7
x 11	x 7	x 4	x 7	x 5	x 3	x 5	x 3	x 4	x 6
22	42	36	42	15	15	15	12	8	42
6	8	1	4	7	11	5	8	4	6
x 4	x 11	x 10	x 6	x 12	x 6	x 5	x 11	x 9	x 8
24	88	10	24	84	66	25	88	36	48

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18 ÷ 6 = 3	55 ÷ 5 = 11	24 ÷ 6 = 4	20 ÷ 10 = 2	11 ÷ 1 = 11
49 ÷ 7 = 7	10 ÷ 10 = 1	18 ÷ 3 = 6	8 ÷ 1 = 8	48 ÷ 12 = 4
10 ÷ 2 = 5	84 ÷ 7 = 12	63 ÷ 9 = 7	40 ÷ 8 = 5	60 ÷ 5 = 12
33 ÷ 11 = 3	60 ÷ 12 = 5	36 ÷ 4 = 9	18 ÷ 2 = 9	27 ÷ 3 = 9
12 ÷ 4 = 3	66 ÷ 6 = 11	12 ÷ 1 = 12	22 ÷ 11 = 2	40 ÷ 5 = 8
33 ÷ 3 = 11	88 ÷ 8 = 11	72 ÷ 12 = 6	8 ÷ 8 = 1	132 ÷ 11 = 12
120 ÷ 10 = 12	12 ÷ 2 = 6	36 ÷ 12 = 3	72 ÷ 8 = 9	36 ÷ 6 = 6
108 ÷ 9 = 12	5 ÷ 1 = 5	80 ÷ 10 = 8	22 ÷ 2 = 11	72 ÷ 9 = 8
99 ÷ 9 = 11	56 ÷ 7 = 8	30 ÷ 10 = 3	7 ÷ 1 = 7	72 ÷ 6 = 12
6 ÷ 2 = 3	42 ÷ 7 = 6	56 ÷ 8 = 7	96 ÷ 12 = 8	15 ÷ 3 = 5
81 ÷ 9 = 9	12 ÷ 12 = 1	110 ÷ 10 = 11	4 ÷ 2 = 2	30 ÷ 3 = 10
12 ÷ 6 = 2	4 ÷ 1 = 4	30 ÷ 6 = 5	42 ÷ 6 = 7	44 ÷ 11 = 4
6 ÷ 3 = 2	2 ÷ 1 = 2	18 ÷ 9 = 2	8 ÷ 2 = 4	24 ÷ 2 = 12
15 ÷ 5 = 3	11 ÷ 11 = 1	24 ÷ 8 = 3	9 ÷ 3 = 3	40 ÷ 10 = 4
20 ÷ 4 = 5	90 ÷ 10 = 9	121 ÷ 11 = 11	5 ÷ 5 = 1	45 ÷ 9 = 5
63 ÷ 7 = 9	21 ÷ 7 = 3	77 ÷ 11 = 7	110 ÷ 11 = 10	40 ÷ 4 = 10
24 ÷ 4 = 6	14 ÷ 7 = 2	16 ÷ 8 = 2	60 ÷ 10 = 6	99 ÷ 11 = 9
4 ÷ 4 = 1	55 ÷ 11 = 5	48 ÷ 6 = 8	64 ÷ 8 = 8	7 ÷ 7 = 1
9 ÷ 9 = 1	120 ÷ 12 = 10	88 ÷ 11 = 8	9 ÷ 1 = 9	48 ÷ 8 = 6
50 ÷ 5 = 10	28 ÷ 7 = 4	70 ÷ 10 = 7	6 ÷ 1 = 6	30 ÷ 5 = 6

<u>Basic Operations</u>	Page 8
Addition	
1) $3487 + 326 = \mathbf{3813}$	
2) $9867 + 429 = \mathbf{10296}$	
Subtraction	
3) $4596 - 236 = \mathbf{4360}$	
4) $6253 - 843 = \mathbf{5410}$	
Multiplication	
5) $34 \times 29 = \mathbf{986}$	
6) $87 \times 54 = \mathbf{4698}$	
Division	
7) $835 \div 5 = \mathbf{167}$	
8) $753 \div 3 = \mathbf{251}$	
Addition	
9) $7532 + 8291 = \mathbf{15823}$	
10) $9542 + 8521 = \mathbf{18063}$	
Subtraction	
11) $9747 - 295 = \mathbf{9452}$	
12) $2524 - 658 = \mathbf{1866}$	
Multiplication	
13) $45 \times 28 = \mathbf{1260}$	
14) $94 \times 29 = \mathbf{2726}$	
Division	
15) $9535 \div 5 = \mathbf{1907}$	
16) $872 \div 4 = \mathbf{218}$	

<u>Inverse Operations</u>	Page 9
Addition	
1) $\mathbf{495} + 94 = 589$	
2) $2374 + \mathbf{5872} = 8246$	
Subtraction	
1) $7252 - \mathbf{379} = 6873$	
2) $\mathbf{2432} - 486 = 1946$	
Multiplication	
1) $9 \times \mathbf{62} = 558$	
2) $\mathbf{42} \times 6 = 252$	
Division	
1) $48 \div \mathbf{6} = 8$	
2) $\mathbf{8578} \div 2 = 4289$	
Addition	
1) $\mathbf{2947} + 1800 = 4747$	
2) $7462 + \mathbf{945} = 8407$	
Subtraction	
1) $9264 - \mathbf{173} = 9091$	
2) $\mathbf{2582} - 2191 = 391$	
Multiplication	
1) $\mathbf{47} \times 8 = 376$	
2) $9 \times \mathbf{27} = 243$	
Division	
1) $\mathbf{9995} \div 5 = 1999$	
2) $63 \div \mathbf{7} = 9$	

<u>Number Work</u>		Page 10				
<u>Square</u>	<u>Cubed</u>	<u>Triangular</u>	<u>Prime</u>	<u>Factors 24</u>	<u>Multiples 13</u>	
1	1	1	2	1	13	
4	8	3	3	24	26	
9	27	6	5	2	39	
16	64	10	7	12	52	
25	125	15	11	3	65	
36			13	8		
49			17	4		
64			19	6		
81			23			
100			29			
121						
144						

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Fractions	Decimals	Percentages (%)
$\frac{1}{2}$	0.5	50%
$\frac{2}{2} = 1$	1	100%
$\frac{1}{4}$	0.25	25%
$\frac{2}{4} = \frac{1}{2}$	0.5	50%
$\frac{3}{4}$	0.75	75%
$\frac{4}{4} = 1$	1	100%
$\frac{1}{10}$	0.1	10%
$\frac{2}{10} = \frac{1}{5}$	0.2	20%
$\frac{3}{10}$	0.3	30%
$\frac{4}{10} = \frac{2}{5}$	0.4	40%
$\frac{5}{10} = \frac{2}{4} = \frac{1}{2}$	0.5	50%
$\frac{6}{10} = \frac{3}{5}$	0.6	60%
$\frac{7}{10}$	0.7	70%
$\frac{8}{10} = \frac{4}{5}$	0.8	80%
$\frac{9}{10}$	0.9	90%
$\frac{10}{10} = 1$	1	100%
$\frac{1}{3}$	0.33...	33.33...%
$\frac{2}{3}$	0.66...	66.66...%
$\frac{3}{3} = 1$	1	100%

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Convert Decimal to Percent

$0.48 = 48 \%$

$0.21 = 21 \%$

$0.14 = 14 \%$

$0.1 = 10 \%$

$0.46 = 46 \%$

$0.67 = 67 \%$

Convert Percent to Decimal

$53 \% = 0.53$

$29 \% = 0.29$

$76 \% = 0.76$

$37 \% = 0.37$

$15 \% = 0.15$

$68 \% = 0.68$

Convert Decimal to Fraction

$0.4 = \frac{4}{10} = \frac{2}{5}$

$0.62 = \frac{62}{100} = \frac{31}{50}$

$0.29 = \frac{29}{100}$

$0.43 = \frac{43}{100}$

$0.38 = \frac{38}{100} = \frac{19}{50}$

$0.34 = \frac{34}{100} = \frac{17}{50}$

Convert Fraction to Decimal

$\frac{5}{20} = 0.25$

$\frac{12}{50} = 0.24$

$\frac{11}{20} = 0.55$

$\frac{14}{20} = 0.7$

$\frac{5}{10} = 0.5$

$\frac{20}{25} = 0.8$

Convert Fraction to Percent

$\frac{46}{50} = 92 \%$

$\frac{17}{20} = 85 \%$

$\frac{14}{50} = 28 \%$

$\frac{5}{10} = 50 \%$

$\frac{1}{10} = 10 \%$

$\frac{18}{20} = 90 \%$

Convert Percent to Fraction

$14 \% = \frac{14}{100} = \frac{7}{50}$

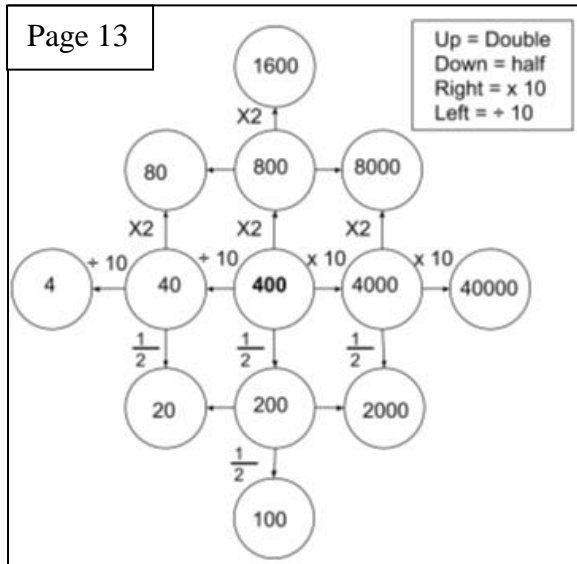
$17 \% = \frac{17}{100}$

$82 \% = \frac{82}{100} = \frac{41}{50}$

$60 \% = \frac{60}{100} = \frac{3}{5}$

$45 \% = \frac{45}{100} = \frac{9}{20}$

$64 \% = \frac{64}{100} = \frac{16}{25}$



Page 14

Conversions

4.7kg
8.4L
3.4km
9.2m
4.2m
7.6cm

Page 14

3D Shapes Table

Shape	Faces	Edges	Vertices
Cube	6	12	8
Cuboid	6	12	8
Triangular Prism	5	9	6
Cylinder	3	2	0
Square based Pyramid	5	8	5
Triangular based pyramid	4	6	4
Sphere	1	0	0
Cone	2	1	1

Page 20

Convert 12hr-24hr

11:16	23:13
15:47	00:00
08:17	03:52
12:00	06:58
22:58	20:37

Page 14

Maths Facts

- Height x base then half
- 360°
- 180°
- 180°
- 4 sided shape
- 360°
- Out of 100
- ÷ bottom, x top
- Length x Width x Height

Page 15

X, ÷ by 10, 100, 1000

- 1) 0.7
- 2) 44000
- 3) 0.65
- 4) 420
- 5) 2.7
- 6) 2500
- 7) 0.028
- 8) 900
- 9) 0.008
- 10) 200
- 11) 0.05
- 12) 390

Page 17-18

Probability

1. DBAC
2. ECADB
3. False, True, True
4. B
5. BDCEA

Page 20

Convert 24hr-12hr

1:21pm	12:00am
5:45am	8:29pm
9:25pm	12:00pm
4:37pm	5:27pm
6:16pm	7:40pm

Page 20

	Start time	End time	Time taken	Position
Sam	11:44	15:38	3 hours 54 minutes	4th
Oliver	10:38	14:53	4 hours 15 minutes	7th
Isla	10:57	15:09	4 hours 12 minutes	6th
Craig	11:39	15:21	3 hours 42 minutes	3rd
Millan	14:13	16:29	2 hours 16 minutes	1st
Daniel	11:17	16:28	5 hours 11 minutes	8th
Tami	13:38	17:16	3 hours 38 minutes	2nd
Keira	12:55	17:04	4 hours 9 minutes	5th

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Time Questions

1. 01:07
2. 7
3. 20:40
4. a) 2 b) 21mins

Perimeter Square/ Rectangle

1. 16 20
2. 36 38
3. 24 60
4. 44 100

Page 23

Perimeter Compound Shapes

1. 30
2. 44
3. 64

Page 24

Page 31

Grammar Page 1

Noun = fox
 Adjective = rosy
 Verb = glided
 Adverb = carefully

Past/ Present Tense

have
 hear
 shake
 see

Singular/ Plural

fungi
 sheep
 echoes
 boys

Homophones

your
 Who's
 their
 ewe

Apostrophes

didn't
 He's
 John's
 men's

Page 32

Grammar Page 2

Noun = football
 Adjective = bouncy
 Verb = float
 Adverb = awkwardly

Past/ Present Tense

took
 swept
 lied
 shot

Singular/ Plural

kilos
 lives
 hooves
 kangaroos

Homophones

their
 Rome
 they're
 plain

Apostrophes

Where's
 girl's
 didn't
 boys'

Page 33

Grammar Page 3

Noun = father
 Adjective = strict
 Verb = write
 Adverb = eagerly

Past/ Present Tense

became
 built
 dealt
 drove

Singular/ Plural

buses
 leaves
 pens
 watches

Homophones

bear
 heir
 week
 see

Apostrophes

can't
 dog's
 isn't
 sun's

Page 34

Synonyms

- 2) a) pain
 b) confused
 c) collude
 d) debate
 e) flashy
 f) harmless

Page 34

Synonyms (Example Answers)

- 1) a) priceless b) carton
 c) game d) home
 e) ban f) acute
 g) vague h) annoy
 i) altar j) the best

Page 34

Synonyms

- 3) chilly = cool
 walk = stroll
 scare = frighten
 sketch = draw
 eat = munch
 courage = bravery

Page 34

Synonyms for thin (Examples)

- 4) delicate, lean, gaunt,
 meagre, narrow, skinny,
 slim

Page 35

Plurals

games
 matches
 boys
 penalties
 halves
 people
 dice
 heroes
 cliffs

Page 35

Opposites

wise
 smooth
 tough
 narrow
 noisy
 less

Page 35

Compound Words

sometime
 inside
 butterfly
 moonlight
 without

Page 35

Suffixes

kindness
 thoughtless
 enjoyment
 neighbourhood
 peaceful

Page 35

Spelling

believe
 foreign
 receive
 piece
 siege