



STIRLING TUITION  
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# Revision Booklet 1

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	
Mean/ Range	
Area	
Triangle Properties	
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](http://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

$$\begin{array}{r} 9 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 15 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 1 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 0 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 16 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 18 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 19 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 17 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 19 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 18 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 18 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 16 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ - 0 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ - 0 \\ \hline \end{array}$$

$$\begin{array}{r} 17 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ - 2 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 1 \\ \hline \end{array} \quad \begin{array}{r} 18 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 15 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 15 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ - 1 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 1 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 17 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 15 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 18 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 19 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 11 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 17 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 16 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 11 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 15 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 11 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ - 2 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ - 2 \\ \hline \end{array} \quad \begin{array}{r} 19 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 0 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ - 2 \\ \hline \end{array} \quad \begin{array}{r} 16 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 11 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ - 0 \\ \hline \end{array} \quad \begin{array}{r} 16 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 1 \\ \hline \end{array} \quad \begin{array}{r} 19 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ - 2 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 17 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 5 \\ \hline \end{array}$$



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

$132 \div 11 =$	$4 \div 4 =$	$56 \div 8 =$	$21 \div 7 =$	$77 \div 11 =$
$22 \div 11 =$	$70 \div 7 =$	$6 \div 2 =$	$20 \div 5 =$	$54 \div 6 =$
$40 \div 4 =$	$48 \div 12 =$	$72 \div 8 =$	$10 \div 10 =$	$55 \div 11 =$
$33 \div 3 =$	$99 \div 9 =$	$30 \div 3 =$	$12 \div 12 =$	$96 \div 12 =$
$4 \div 2 =$	$14 \div 2 =$	$96 \div 8 =$	$63 \div 7 =$	$60 \div 12 =$
$20 \div 10 =$	$16 \div 2 =$	$100 \div 10 =$	$66 \div 6 =$	$63 \div 9 =$
$50 \div 5 =$	$88 \div 8 =$	$28 \div 4 =$	$35 \div 5 =$	$4 \div 1 =$
$40 \div 8 =$	$60 \div 5 =$	$48 \div 6 =$	$22 \div 2 =$	$9 \div 9 =$
$10 \div 1 =$	$48 \div 8 =$	$8 \div 8 =$	$9 \div 3 =$	$110 \div 10 =$
$24 \div 12 =$	$49 \div 7 =$	$121 \div 11 =$	$24 \div 3 =$	$60 \div 6 =$
$90 \div 9 =$	$50 \div 10 =$	$18 \div 9 =$	$30 \div 6 =$	$15 \div 5 =$
$12 \div 1 =$	$5 \div 5 =$	$45 \div 5 =$	$56 \div 7 =$	$18 \div 3 =$
$30 \div 10 =$	$120 \div 12 =$	$40 \div 10 =$	$30 \div 5 =$	$108 \div 12 =$
$36 \div 4 =$	$24 \div 6 =$	$11 \div 11 =$	$18 \div 6 =$	$6 \div 6 =$
$77 \div 7 =$	$108 \div 9 =$	$36 \div 6 =$	$9 \div 1 =$	$20 \div 2 =$
$99 \div 11 =$	$60 \div 10 =$	$80 \div 10 =$	$6 \div 1 =$	$8 \div 2 =$
$10 \div 2 =$	$21 \div 3 =$	$144 \div 12 =$	$18 \div 2 =$	$44 \div 4 =$
$24 \div 8 =$	$15 \div 3 =$	$42 \div 7 =$	$27 \div 3 =$	$84 \div 12 =$
$120 \div 10 =$	$28 \div 7 =$	$36 \div 3 =$	$24 \div 2 =$	$5 \div 1 =$
$3 \div 3 =$	$72 \div 12 =$	$1 \div 1 =$	$40 \div 5 =$	$81 \div 9 =$

**Basic Operations**

## Addition

1)  $495 + 94 =$  \_\_\_\_\_

2)  $2374 + 5872 =$  \_\_\_\_\_

## Subtraction

3)  $7252 - 379 =$  \_\_\_\_\_

4)  $2432 - 486 =$  \_\_\_\_\_

## Multiplication

5)  $95 \times 62 =$  \_\_\_\_\_

6)  $42 \times 26 =$  \_\_\_\_\_

## Division

7)  $5985 \div 5 =$  \_\_\_\_\_

8)  $8578 \div 2 =$  \_\_\_\_\_

## Addition

9)  $2947 + 1800 =$  \_\_\_\_\_

10)  $7462 + 945 =$  \_\_\_\_\_

## Subtraction

11)  $9264 - 173 =$  \_\_\_\_\_

12)  $2582 - 2191 =$  \_\_\_\_\_

## Multiplication

13)  $47 \times 83 =$  \_\_\_\_\_

14)  $91 \times 81 =$  \_\_\_\_\_

## Division

15)  $9995 \div 5 =$  \_\_\_\_\_

16)  $2597 \div 7 =$  \_\_\_\_\_



**Inverse Operations****Addition**

1)  $3487 + \underline{\hspace{2cm}} = 3813$

2)  $\underline{\hspace{2cm}} + 429 = 10296$

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

3)  $\underline{\hspace{2cm}} - 236 = 4360$

4)  $6253 - \underline{\hspace{2cm}} = 5410$

**Multiplication**

5)  $36 \times \underline{\hspace{2cm}} = 216$

6)  $\underline{\hspace{2cm}} \times 54 = 486$

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

7)  $\underline{\hspace{2cm}} \div 5 = 167$

8)  $96 \div \underline{\hspace{2cm}} = 32$

**Addition**

9)  $7532 + \underline{\hspace{2cm}} = 15823$

10)  $\underline{\hspace{2cm}} + 8521 = 18063$

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

11)  $\underline{\hspace{2cm}} - 295 = 9452$

12)  $2524 - \underline{\hspace{2cm}} = 1866$

**Multiplication**

13)  $7 \times \underline{\hspace{2cm}} = 322$

14)  $\underline{\hspace{2cm}} \times 9 = 846$

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

15)  $\underline{\hspace{2cm}} \div 5 = 123$

16)  $60 \div \underline{\hspace{2cm}} = 5$

**Number Work**Square Numbers (First 12)


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

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Factors of 12 (6)

12

Prime Numbers (First 10)


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Multiples of 25 (First 5)


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**Equivalent Fraction, Decimal, %**

Fractions	Decimals	Percentages (%)
$\frac{1}{2}$		50%
$\frac{2}{2} = 1$		100%
$\frac{1}{4}$		25%
$\frac{2}{4} = \frac{1}{2}$		50%
$\frac{3}{4}$		75%
$\frac{4}{4} = 1$		100%
$\frac{1}{10}$	0.1	
$\frac{2}{10} = \frac{1}{5}$	0.2	
$\frac{3}{10}$	0.3	
$\frac{4}{10} = \frac{2}{5}$	0.4	
$\frac{5}{10} = \frac{2}{4} = \frac{1}{2}$	0.5	
$\frac{6}{10} = \frac{3}{5}$	0.6	
$\frac{7}{10}$	0.7	
$\frac{8}{10} = \frac{4}{5}$	0.8	
$\frac{9}{10}$	0.9	
$\frac{10}{10} = 1$	1	
$\frac{1}{3}$		33.33...%
$\frac{2}{3}$		66.66...%
$\frac{3}{3} = 1$		100%

## Convert Between Fractions, Decimals and Percentages

Refer to Video Tutorial found at:

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

### Convert Decimal to Percent

$0.58 =$

$0.16 =$

$0.53 =$

$0.05 =$

$0.11 =$

$0.81 =$

### Convert Percent to Decimal

$87 \% =$

$55 \% =$

$50 \% =$

$86 \% =$

$21 \% =$

$34 \% =$

### Convert Decimal to Fraction

$0.73 =$

$0.3 =$

$0.8 =$

$0.41 =$

$0.12 =$

$0.55 =$

### Convert Fraction to Decimal

$\frac{5}{20} =$

$\frac{6}{10} =$

$\frac{9}{25} =$

$\frac{17}{20} =$

$\frac{9}{20} =$

$\frac{4}{10} =$

### Convert Fraction to Percent

$\frac{9}{10} =$

$\frac{3}{25} =$

$\frac{15}{20} =$

$\frac{8}{10} =$

$\frac{6}{20} =$

$\frac{5}{25} =$

### Convert Percent to Fraction

$20 \% =$

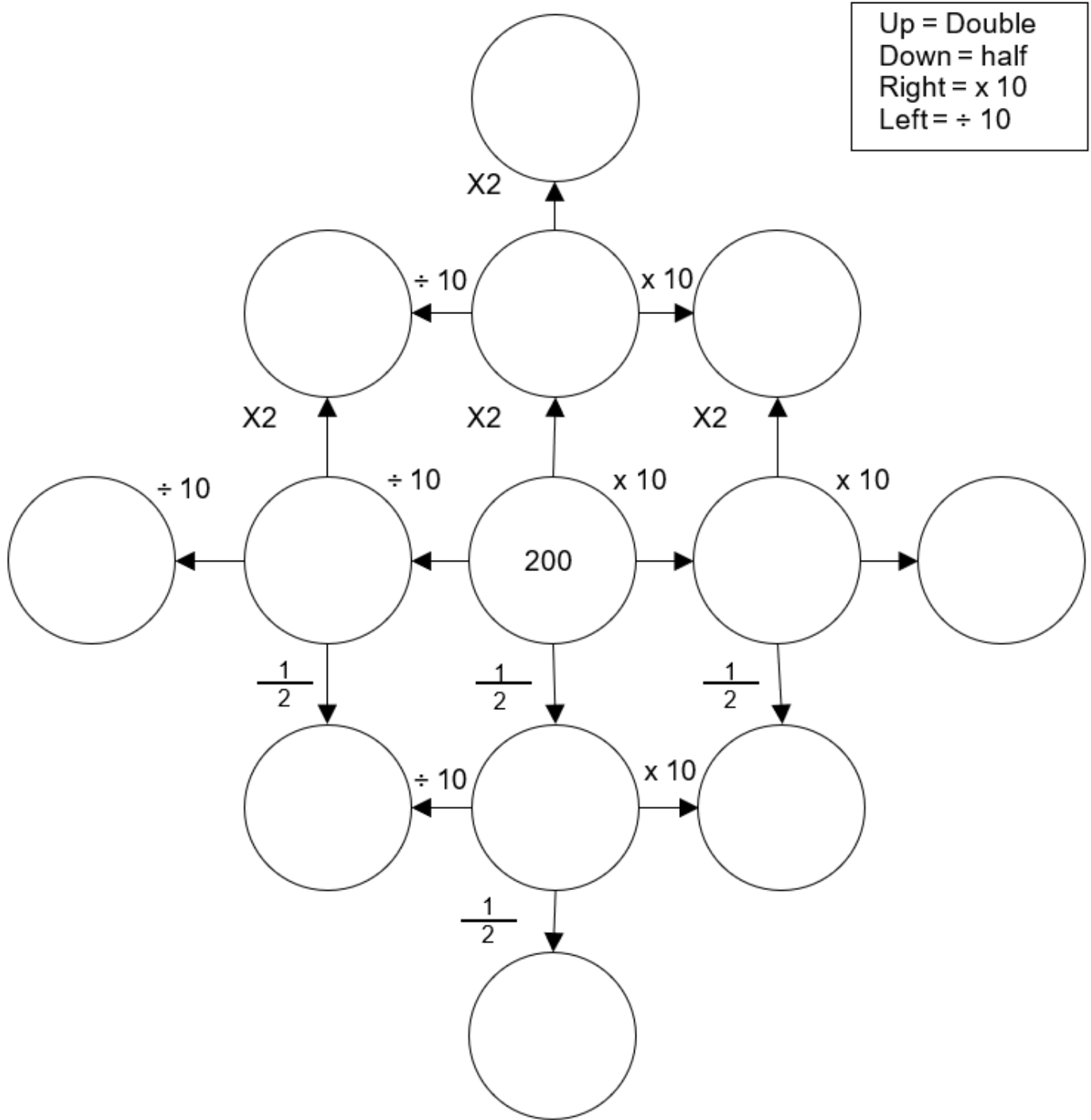
$72 \% =$

$73 \% =$

$65 \% =$

$56 \% =$

$76 \% =$

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

### Conversions of Measures

1.6 Kilogram (kg)	_____ grams (g)
1.4 Litre (L)	_____ millilitres (ml)
1.8 Kilometer (km)	_____ meters (m)
1.3 meter (m)	_____ millimeters (mm)
1.9 meter (m)	_____ centimeters (cm)
1.7 centimeter (cm)	_____ millimeters (mm)

### 3D Shapes Table

Shape	Faces	Edges	Vertices
<b>Cube</b>			
<b>Cuboid</b>			
<b>Triangular Prism</b>			
<b>Cylinder</b>			
<b>Square based Pyramid</b>			
<b>Triangular based pyramid</b>			
<b>Sphere</b>			
<b>Cone</b>			

### 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)  $43.5 \times 100$

Answer: \_\_\_\_\_

2)  $39.5 \div 1000$

Answer: \_\_\_\_\_

3)  $5.5 \times 10$

Answer: \_\_\_\_\_

4)  $42 \div 10$

Answer: \_\_\_\_\_

5)  $37 \times 10$

Answer: \_\_\_\_\_

6)  $18 \div 10$

Answer: \_\_\_\_\_

7)  $27 \times 100$

Answer: \_\_\_\_\_

8)  $31.5 \div 10$

Answer: \_\_\_\_\_

9)  $16 \times 100$

Answer: \_\_\_\_\_

10)  $10.5 \div 100$

Answer: \_\_\_\_\_

11)  $40.5 \times 1000$

Answer: \_\_\_\_\_

12)  $39 \div 100$

Answer: \_\_\_\_\_

## Mean (average) and Range

### Explanation of Mean (Average):

To work out the **mean or average** of a set of numbers, simply **add** all the numbers together. Then **divide** the total of the numbers by the number of numbers you added together.

### **For Example:**

*1. For a school project, children had to count the number of counters in eight cups. The number of counters in each of the eight cups is given below.*

**7 5 3 9 11 4 10 7**

*a) Calculate the **mean** (average) number of counters in the cups. Write your answer in the space below.*

      8       counters

$$7 + 5 + 3 + 9 + 11 + 4 + 10 + 7 = 56$$

*There are 8 numbers:*

$$56 \div 8 = 7$$

### **Mean Reminder: Add and Divide**

### Explanation of Range:

The **range** is simply the **difference between the largest number and the smallest number.**

### **For Example:**

*b) What is the **range** for the counters in the cups? Write your answer in the space below.*

      8       counters

$$\begin{aligned} \text{Largest} &= 11 \\ \text{Smallest} &= 3 \\ \text{Difference} &= 8 \end{aligned}$$



1. For a business, the owner has to count the number of laptops he has in each of his five stores. The number of laptops in each of his stores is given below.

**27 31 24 49 114**

a) Calculate the **mean** (average) number of laptops in each store. Write your answer in the space below.

\_\_\_\_\_ laptops

b) What is the **range** for the laptops? Write your answer in the space below.

\_\_\_\_\_ laptops

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2. A paper boy delivers papers every day of the week. The number of papers he delivers each day is given below. (There is a lot more on Thursday, as it is Spectator day!)

**12 15 18 32 11 9 8**

a) Calculate the **mean** (average) number of papers the boy delivers each day. Write your answer in the space below.

\_\_\_\_\_ papers

b) What is the **range** for the papers? Write your answer in the space below.

\_\_\_\_\_ papers

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3. Clare is saving for a holiday. Over five weeks she saves the following amounts.

**£24    £19    £36    £102    £64**

a) Calculate the **mean** (average) number for how much she saves each week. Write your answer in the space below.

£ \_\_\_\_\_

b) What is the **range** for the different amounts she saves? Write your answer in the space below.

£ \_\_\_\_\_

---

4. Sam has decided to order his comics as his mum keeps complaining they are messing his room. He puts them into 6 different piles. Below is the amount of comics in each pile.

**32    24    35    21    42    38**

a) Calculate the **mean** (average) number for how many comics are in each pile. Write your answer in the space below.

\_\_\_\_\_ comics

b) What is the **range** for the different piles of comics? Write your answer in the space below.

\_\_\_\_\_ comics

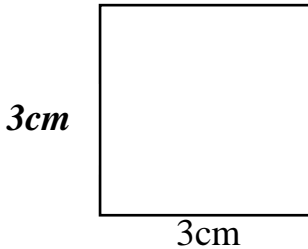
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## Area

### Explanation of Area of Shapes (Squares/ Rectangles):

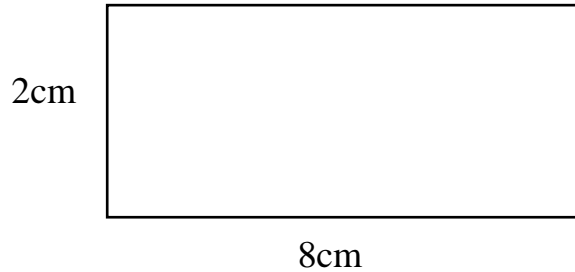
To work out the area of a shape **multiply the length by the width**.

#### Example:



$$3\text{cm} \times 3\text{cm} = 9\text{cm}^2$$

Area =           9cm<sup>2</sup>          



$$2\text{cm} \times 8\text{cm} = 16\text{cm}^2$$

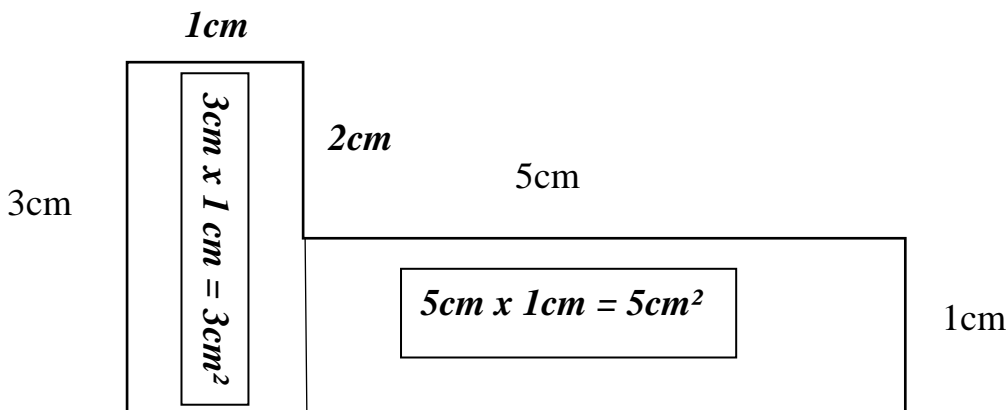
Area =           16cm<sup>2</sup>          

#### Area Reminder: Multiply

### Explanation of Area of Compound Shapes:

- 1) With compound shapes **split** the shape into rectangles and squares.
- 2) Find the missing lengths (**Tip: All the horizontal lines are connected; all the vertical lines are connected**).
- 3) **Find** the **area** of **individual** shapes.
- 4) Then finally **add** the areas.

#### Example:

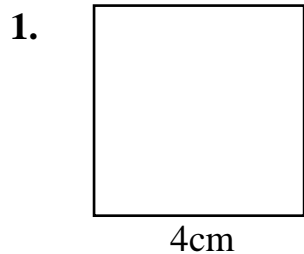


6cm

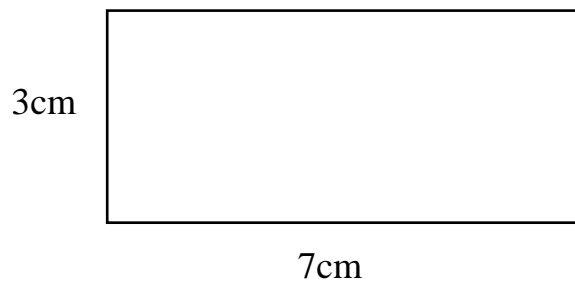
$$3\text{cm}^2 + 5\text{cm}^2 = 8\text{cm}^2$$

Area =           8cm<sup>2</sup>          

#### Compound Shape Area Reminder: Split-Find Area-Add

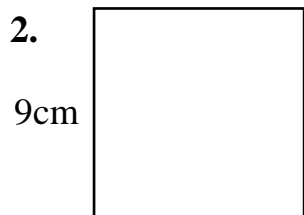


Area = \_\_\_\_\_

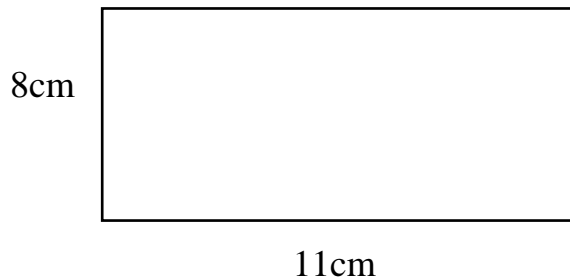


Area = \_\_\_\_\_

---

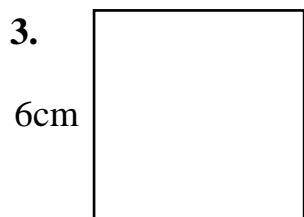


Area = \_\_\_\_\_

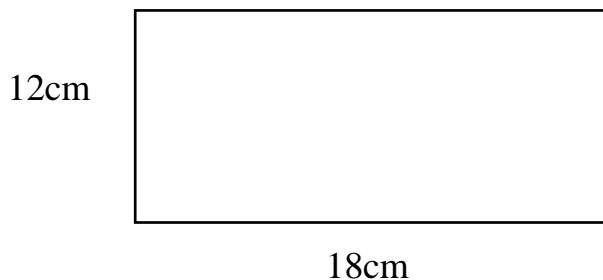


Area = \_\_\_\_\_

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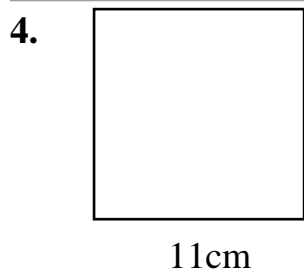


Area = \_\_\_\_\_

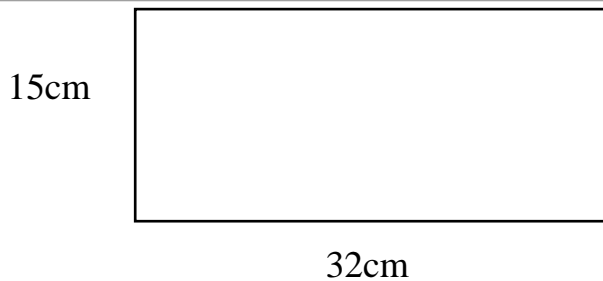


Area = \_\_\_\_\_

---



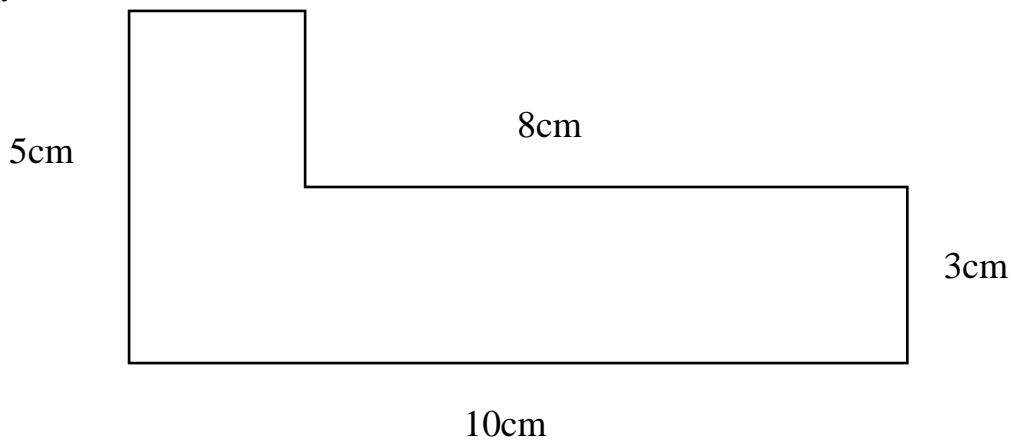
Area = \_\_\_\_\_



Area = \_\_\_\_\_

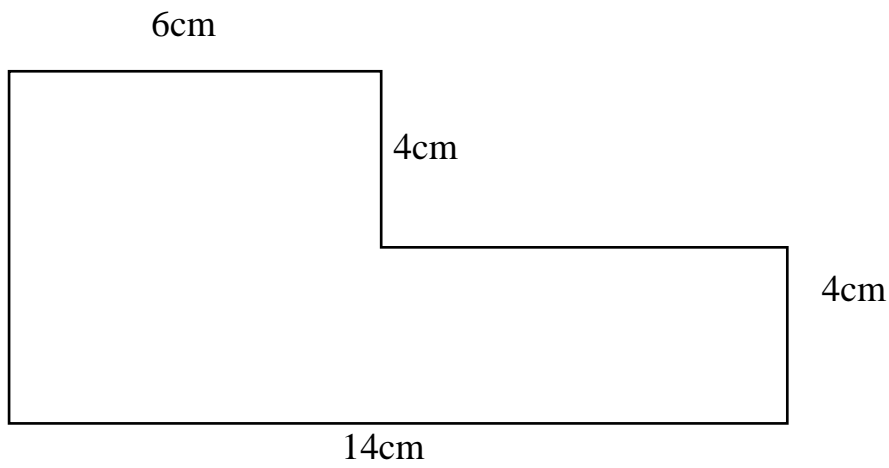
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1.



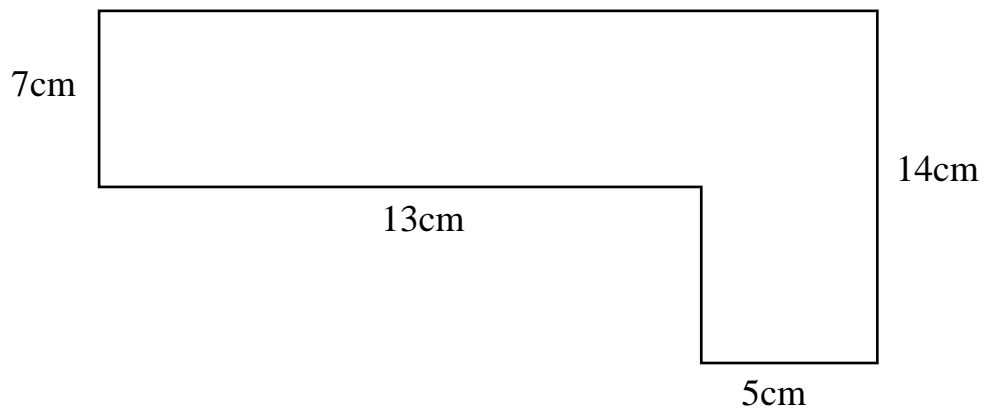
Area = \_\_\_\_\_

2.



Area = \_\_\_\_\_

3.



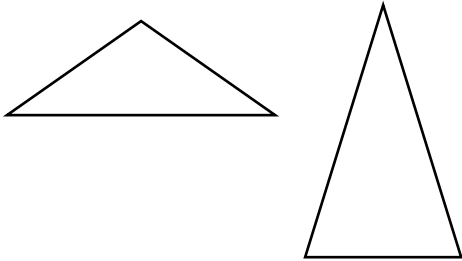
Area = \_\_\_\_\_

## Triangle Properties

### Explanation of Area of Triangle Properties:

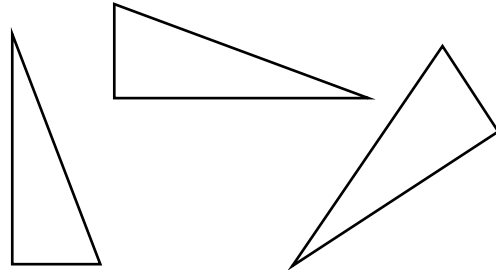
#### Isosceles Triangle

- Two sides the same length.
- Two angles the same size.



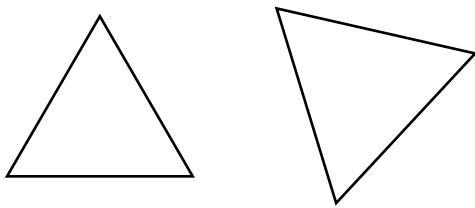
#### Right Angled Triangle

- Has a Right angle.



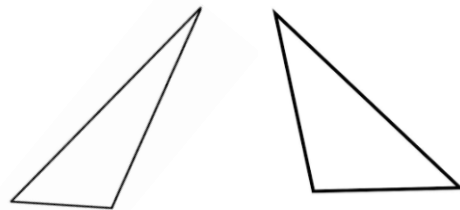
#### Equilateral Triangle

- All sides the same length.
- All angles the same ( $60^\circ$ ).

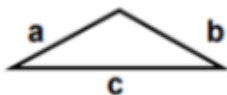


#### Scalene Triangle

- All sides different lengths.
- All angles different.

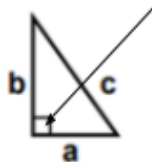


1) (All sides different)



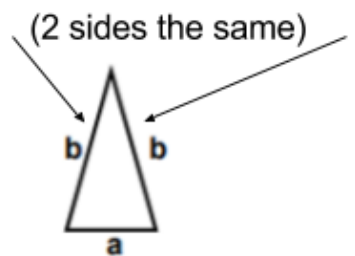
Type: Scalene

2) (Right angle)



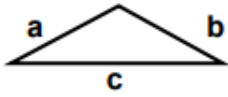
Type: Right angled

5)



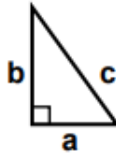
Type: Isosceles

1)



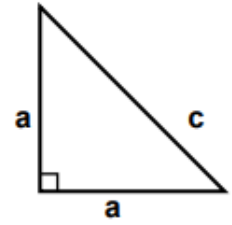
Type: \_\_\_\_\_

2)



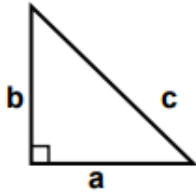
Type: \_\_\_\_\_

3)



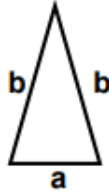
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4)



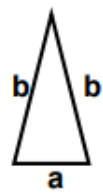
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5)



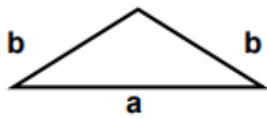
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6)



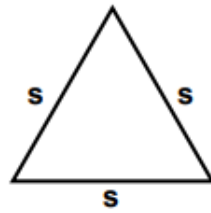
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7)



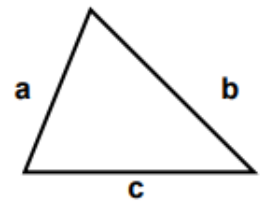
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8)



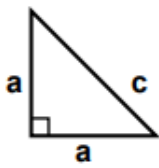
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9)



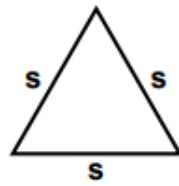
Type: \_\_\_\_\_

10)



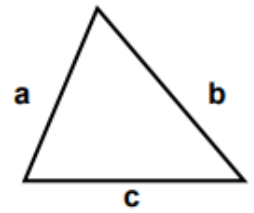
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11)



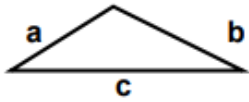
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12)



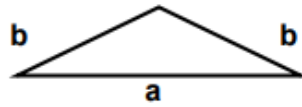
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1)



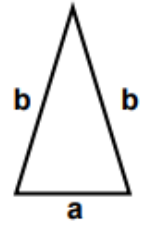
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2)



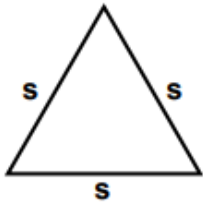
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3)



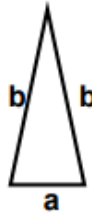
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4)



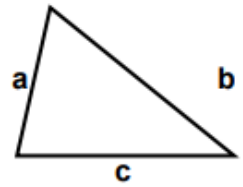
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5)



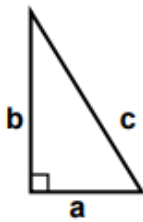
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6)



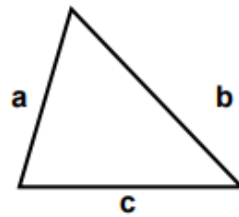
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7)



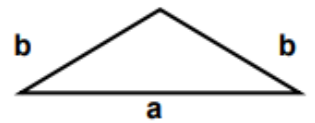
Type: \_\_\_\_\_

8)



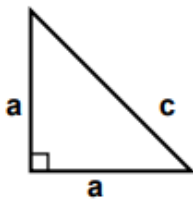
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9)



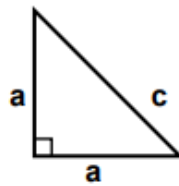
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10)



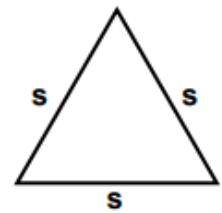
Type: \_\_\_\_\_

11)



Type: \_\_\_\_\_

12)



Type: \_\_\_\_\_



## 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**certain

## **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 succceed?

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 2<sup>nd</sup> 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**

	verb	noun	adjective	adverb
house				
swiftly				
happy				
smile				

**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 \_\_\_\_\_  
 know \_\_\_\_\_  
 bring \_\_\_\_\_  
 write \_\_\_\_\_

**Singular/ Plural**

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

box \_\_\_\_\_  
 calf \_\_\_\_\_  
 foot \_\_\_\_\_  
 goose \_\_\_\_\_

**Homophones:** Circle the correct homophone for the sentence.

I do not **know/ no** your name.

Do you live over **there/ their**?

The **whether/ weather** has been great this month.

My shed is made of **steel/ steal**.

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

The babys name was very unusual.

The childrens competition was won by a 5-year-old.

Last months profits were disappointing.

The postmens bags were extremely heavy.

**Tick the correct word type**

	noun	verb	adjective	adverb
wander				
quickly				
brush				
floppy				

**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.**

stood \_\_\_\_\_  
 met \_\_\_\_\_  
 lost \_\_\_\_\_  
 built \_\_\_\_\_

**Singular/ Plural**

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

church \_\_\_\_\_  
 child \_\_\_\_\_  
 edge \_\_\_\_\_  
 elf \_\_\_\_\_

**Homophones:** Circle the correct homophone for the sentence.

Have you **red/ read** this book before?

Do you know **where/ were** Sam has gone?

Butter is **maid/ made** from milk.

Brides often cover **their/ there** face with a **vale/ veil**.

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

Martins homework was excellent.

The students attitude to their work was excellent.

Do you know where Mikes son is?

The salesmens party was cancelled.



**Tick the correct word type**

	noun	verb	adverb	adjective
slowly				
ran				
warm				
bath				

**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.**

bite \_\_\_\_\_  
 build \_\_\_\_\_  
 eat \_\_\_\_\_  
 freeze \_\_\_\_\_

**Singular/ Plural**

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

memo \_\_\_\_\_  
 knife \_\_\_\_\_  
 mouse \_\_\_\_\_  
 hero \_\_\_\_\_

**Homophones:** Circle the correct homophone for the sentence.

Some dogs have **there/ their tales/ tails** removed.

When children **our/ are** ill they look very **pail/ pale**.

I have a **whole/ hole** in my bucket.

A **leak/ leek** is a vegetable not a fruit.

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

When youve run the race give me a call.

Its important to check the water in your car.

In the supermarket hes bought a sandwich and drink.

Please, please, please dont do that!

## Synonyms

(Note: Throughout this section use a thesaurus if required.)

1. Find a second word with a similar meaning to the word in **bold**:

- a) **GRADUAL** – momentary, slight, happening fast, happening slowly
- b) **INTERFERENCE** – mistake, misunderstanding, expansion, interruption
- c) **PROMPT** – payment, late, occasional, immediate
- d) **SOLITARY** – weep, alone, quiet, timid
- e) **PROCEEDED** – followed, attacked, continued, hurried
- f) **ACTUALLY** – possibly, likely, probably, really

2. Write down a synonym for each word (Use a thesaurus if you need to):

- |                   |                    |
|-------------------|--------------------|
| a) liberty _____  | b) delicious _____ |
| c) curious _____  | d) dull _____      |
| e) tremble _____  | f) leap _____      |
| g) strike _____   | h) hungry _____    |
| i) peculiar _____ | j) tease _____     |

3. Match up the synonyms in the list:

- |       |          |          |            |
|-------|----------|----------|------------|
| round | correct  | speedy   | courageous |
| right | circular | mournful | hard       |
| brave | gloomy   | rapid    | difficult  |

4. Can you find four different synonyms of **anger**? E.g. start with 'crossness'

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

**Plurals**

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

cat	_____	cuff	_____
fox	_____	kangaroo	_____
turkey	_____	fish	_____
pony	_____	mouse	_____
calf	_____		

**Opposites**

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

above	_____	cheap	_____
bright	_____	deep	_____
busy	_____	dead	_____

**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.

time          not          ball          where          come

base \_\_\_\_\_  
 some \_\_\_\_\_  
 can \_\_\_\_\_  
 life \_\_\_\_\_  
 be \_\_\_\_\_

**Prefixes (goes before a word)**

Look at the five prefixes below. Use these prefixes to create the words opposite in meaning to the words listed below. Each prefix can only be used once.

un          mis          ir          il          in

behave	_____	correct	_____
legal	_____	rational	_____
happy	_____		

**Spelling**

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

apparant	apparent
environment	environmant
government	governmant
independant	independent
persistant	persistent

**Answers**

**Page 4**

$\frac{19}{+3}$	$\frac{14}{+8}$	$\frac{8}{+4}$	$\frac{15}{+8}$	$\frac{10}{+3}$	$\frac{10}{+8}$	$\frac{11}{+9}$	$\frac{11}{+8}$	$\frac{14}{+3}$	$\frac{16}{+7}$
22	22	12	23	13	18	20	19	17	23
$\frac{3}{+8}$	$\frac{8}{+4}$	$\frac{17}{+4}$	$\frac{18}{+6}$	$\frac{3}{+5}$	$\frac{15}{+3}$	$\frac{14}{+6}$	$\frac{17}{+8}$	$\frac{10}{+4}$	$\frac{10}{+9}$
11	12	21	24	8	18	20	25	14	19
$\frac{5}{+9}$	$\frac{7}{+6}$	$\frac{9}{+7}$	$\frac{13}{+5}$	$\frac{6}{+6}$	$\frac{7}{+9}$	$\frac{4}{+7}$	$\frac{13}{+9}$	$\frac{8}{+5}$	$\frac{11}{+3}$
14	13	16	18	12	16	11	22	13	14
$\frac{15}{+6}$	$\frac{8}{+8}$	$\frac{19}{+5}$	$\frac{6}{+9}$	$\frac{14}{+8}$	$\frac{16}{+8}$	$\frac{5}{+4}$	$\frac{17}{+4}$	$\frac{16}{+8}$	$\frac{18}{+3}$
21	16	24	15	22	24	9	21	24	21
$\frac{9}{+6}$	$\frac{12}{+9}$	$\frac{13}{+5}$	$\frac{3}{+9}$	$\frac{18}{+4}$	$\frac{15}{+3}$	$\frac{15}{+5}$	$\frac{9}{+4}$	$\frac{18}{+9}$	$\frac{7}{+7}$
15	21	18	12	22	18	20	13	27	14
$\frac{4}{+4}$	$\frac{4}{+5}$	$\frac{16}{+8}$	$\frac{6}{+5}$	$\frac{9}{+7}$	$\frac{14}{+5}$	$\frac{7}{+4}$	$\frac{12}{+7}$	$\frac{17}{+4}$	$\frac{19}{+6}$
8	9	24	11	16	19	11	19	21	25
$\frac{10}{+9}$	$\frac{5}{+4}$	$\frac{10}{+5}$	$\frac{18}{+8}$	$\frac{8}{+3}$	$\frac{5}{+7}$	$\frac{16}{+4}$	$\frac{11}{+7}$	$\frac{16}{+6}$	$\frac{6}{+5}$
19	9	15	26	11	12	20	18	22	11
$\frac{12}{+5}$	$\frac{19}{+9}$	$\frac{9}{+7}$	$\frac{7}{+8}$	$\frac{3}{+6}$	$\frac{19}{+9}$	$\frac{8}{+3}$	$\frac{12}{+7}$	$\frac{18}{+6}$	$\frac{13}{+9}$
17	28	16	15	9	28	11	19	24	22
$\frac{19}{+6}$	$\frac{17}{+6}$	$\frac{9}{+8}$	$\frac{6}{+7}$	$\frac{13}{+5}$	$\frac{17}{+3}$	$\frac{15}{+5}$	$\frac{13}{+7}$	$\frac{4}{+9}$	$\frac{3}{+3}$
25	23	17	13	18	20	20	20	13	6
$\frac{3}{+6}$	$\frac{4}{+3}$	$\frac{11}{+3}$	$\frac{5}{+7}$	$\frac{5}{+3}$	$\frac{11}{+6}$	$\frac{4}{+4}$	$\frac{12}{+7}$	$\frac{6}{+7}$	$\frac{12}{+5}$
9	7	14	12	8	17	8	19	13	17

**Page 5**

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

**Page 6**

$\frac{2}{x11}$	$\frac{5}{x4}$	$\frac{12}{x5}$	$\frac{4}{x3}$	$\frac{2}{x10}$	$\frac{7}{x5}$	$\frac{10}{x10}$	$\frac{2}{x12}$	$\frac{4}{x5}$	$\frac{4}{x1}$
22	20	60	12	20	35	100	24	20	4
$\frac{6}{x12}$	$\frac{4}{x6}$	$\frac{1}{x3}$	$\frac{8}{x11}$	$\frac{9}{x2}$	$\frac{4}{x1}$	$\frac{9}{x10}$	$\frac{4}{x7}$	$\frac{8}{x12}$	$\frac{10}{x12}$
72	24	3	88	18	4	90	28	96	120
$\frac{10}{x12}$	$\frac{7}{x11}$	$\frac{2}{x6}$	$\frac{11}{x1}$	$\frac{7}{x5}$	$\frac{7}{x12}$	$\frac{8}{x6}$	$\frac{10}{x6}$	$\frac{10}{x6}$	$\frac{5}{x12}$
120	77	12	11	35	84	48	60	60	60
$\frac{12}{x11}$	$\frac{4}{x3}$	$\frac{8}{x5}$	$\frac{4}{x3}$	$\frac{8}{x3}$	$\frac{12}{x2}$	$\frac{10}{x6}$	$\frac{5}{x4}$	$\frac{11}{x3}$	$\frac{8}{x12}$
132	12	40	12	24	24	60	20	33	96
$\frac{11}{x1}$	$\frac{8}{x9}$	$\frac{8}{x7}$	$\frac{3}{x3}$	$\frac{3}{x12}$	$\frac{4}{x1}$	$\frac{1}{x3}$	$\frac{6}{x12}$	$\frac{4}{x3}$	$\frac{3}{x12}$
11	72	56	9	36	4	3	72	12	36
$\frac{8}{x2}$	$\frac{10}{x5}$	$\frac{1}{x1}$	$\frac{1}{x8}$	$\frac{6}{x7}$	$\frac{8}{x5}$	$\frac{6}{x5}$	$\frac{11}{x1}$	$\frac{5}{x7}$	$\frac{8}{x10}$
16	50	1	8	42	40	30	11	35	80
$\frac{9}{x3}$	$\frac{3}{x9}$	$\frac{2}{x12}$	$\frac{3}{x3}$	$\frac{11}{x6}$	$\frac{3}{x8}$	$\frac{8}{x6}$	$\frac{2}{x7}$	$\frac{11}{x10}$	$\frac{3}{x7}$
27	27	24	9	66	24	48	14	110	21
$\frac{9}{x9}$	$\frac{2}{x5}$	$\frac{10}{x10}$	$\frac{10}{x6}$	$\frac{9}{x9}$	$\frac{5}{x7}$	$\frac{7}{x9}$	$\frac{7}{x9}$	$\frac{7}{x1}$	$\frac{6}{x10}$
81	10	100	60	81	35	63	63	7	60
$\frac{9}{x10}$	$\frac{4}{x2}$	$\frac{2}{x3}$	$\frac{11}{x5}$	$\frac{10}{x2}$	$\frac{8}{x6}$	$\frac{8}{x2}$	$\frac{1}{x8}$	$\frac{6}{x5}$	$\frac{7}{x6}$
90	8	6	55	20	48	16	8	30	42
$\frac{9}{x8}$	$\frac{3}{x7}$	$\frac{9}{x7}$	$\frac{9}{x9}$	$\frac{7}{x7}$	$\frac{5}{x11}$	$\frac{3}{x4}$	$\frac{8}{x4}$	$\frac{3}{x5}$	$\frac{3}{x2}$
72	21	63	81	49	55	12	32	15	6

**Page 7**

$132 \div 11 = 12$	$4 + 4 = 1$	$56 \div 8 = 7$	$21 \div 7 = 3$	$77 \div 11 = 7$
$22 \div 11 = 2$	$70 \div 7 = 10$	$6 + 2 = 3$	$20 \div 5 = 4$	$54 \div 6 = 9$
$40 \div 4 = 10$	$48 \div 12 = 4$	$72 \div 8 = 9$	$10 \div 10 = 1$	$55 \div 11 = 5$
$33 \div 3 = 11$	$99 \div 9 = 11$	$30 \div 3 = 10$	$12 \div 12 = 1$	$96 \div 12 = 8$
$4 \div 2 = 2$	$14 \div 2 = 7$	$96 \div 8 = 12$	$63 \div 7 = 9$	$60 \div 12 = 5$
$20 \div 10 = 2$	$16 \div 2 = 8$	$100 \div 10 = 10$	$66 \div 6 = 11$	$63 \div 9 = 7$
$50 \div 5 = 10$	$88 \div 8 = 11$	$28 \div 4 = 7$	$35 \div 5 = 7$	$4 \div 1 = 4$
$40 \div 8 = 5$	$60 \div 5 = 12$	$48 \div 6 = 8$	$22 \div 2 = 11$	$9 \div 9 = 1$
$10 \div 1 = 10$	$48 \div 8 = 6$	$8 \div 8 = 1$	$9 \div 3 = 3$	$110 \div 10 = 11$
$24 \div 12 = 2$	$49 \div 7 = 7$	$121 \div 11 = 11$	$24 \div 3 = 8$	$60 \div 6 = 10$
$90 \div 9 = 10$	$50 \div 10 = 5$	$18 \div 9 = 2$	$30 \div 6 = 5$	$15 \div 5 = 3$
$12 \div 1 = 12$	$5 \div 5 = 1$	$45 \div 5 = 9$	$56 \div 7 = 8$	$18 \div 3 = 6$
$30 \div 10 = 3$	$120 \div 12 = 10$	$40 \div 10 = 4$	$30 \div 5 = 6$	$108 \div 12 = 9$
$36 \div 4 = 9$	$24 \div 6 = 4$	$11 \div 11 = 1$	$18 \div 6 = 3$	$6 \div 6 = 1$
$77 \div 7 = 11$	$108 \div 9 = 12$	$36 \div 6 = 6$	$9 \div 1 = 9$	$20 \div 2 = 10$
$99 \div 11 = 9$	$60 \div 10 = 6$	$80 \div 10 = 8$	$6 \div 1 = 6$	$8 \div 2 = 4$
$10 \div 2 = 5$	$21 \div 3 = 7$	$144 \div 12 = 12$	$18 \div 2 = 9$	$44 \div 4 = 11$
$24 \div 8 = 3$	$15 \div 3 = 5$	$42 \div 7 = 6$	$27 \div 3 = 9$	$84 \div 12 = 7$
$120 \div 10 = 12$	$28 \div 7 = 4$	$36 \div 3 = 12$	$24 \div 2 = 12$	$5 \div 1 = 5$
$3 \div 3 = 1$	$72 \div 12 = 6$	$1 \div 1 = 1$	$40 \div 5 = 8$	$81 \div 9 = 9$

<u>Basic Operations</u>	Page 8
Addition	
1) $495 + 94 = \mathbf{589}$	
2) $2374 + 5872 = \mathbf{8246}$	
Subtraction	
3) $7252 - 379 = \mathbf{6873}$	
4) $2432 - 486 = \mathbf{1946}$	
Multiplication	
5) $95 \times 62 = \mathbf{5890}$	
6) $42 \times 26 = \mathbf{1092}$	
Division	
7) $5985 \div 5 = \mathbf{1197}$	
8) $8578 \div 2 = \mathbf{4289}$	
Addition	
9) $2947 + 1800 = \mathbf{4747}$	
10) $7462 + 945 = \mathbf{8407}$	
Subtraction	
11) $9264 - 173 = \mathbf{9091}$	
12) $2582 - 2191 = \mathbf{391}$	
Multiplication	
13) $47 \times 83 = \mathbf{3901}$	
14) $91 \times 81 = \mathbf{7371}$	
Division	
15) $9995 \div 5 = \mathbf{1999}$	
16) $2597 \div 7 = \mathbf{371}$	

<u>Inverse Operations</u>	Page 9
Addition	
1) $3487 + \mathbf{326} = 3813$	
2) $\mathbf{9867} + 429 = 10296$	
Subtraction	
3) $\mathbf{4596} - 236 = 4360$	
4) $6253 - \mathbf{843} = 5410$	
Multiplication	
5) $36 \times \mathbf{6} = 216$	
6) $\mathbf{9} \times 54 = 486$	
Division	
7) $\mathbf{835} \div 5 = 167$	
8) $96 \div \mathbf{3} = 32$	
Addition	
9) $7532 + \mathbf{8291} = 15823$	
10) $\mathbf{9542} + 8521 = 18063$	
Subtraction	
11) $\mathbf{9747} - 295 = 9452$	
12) $2524 - \mathbf{658} = 1866$	
Multiplication	
13) $7 \times \mathbf{46} = 322$	
14) $\mathbf{94} \times 9 = 846$	
Division	
15) $\mathbf{615} \div 5 = 123$	
16) $60 \div \mathbf{12} = 5$	

<u>Number Work</u>		Page 10			
<u>Square</u>	<u>Cubed</u>	<u>Triangular</u>	<u>Prime</u>	<u>Factors 12</u>	<u>Multiples 25</u>
1	1	1	2	1	25
4	8	3	3	12	50
9	27	6	5	2	75
16	64	10	7	6	100
25	125	15	11	3	125
36			13	4	
49			17		
64			19		
81			23		
100			29		
121					
144					

Page 11

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%

Page 12

**Convert Decimal to Percent**

$0.58 = 58 \%$

$0.16 = 16 \%$

$0.53 = 53 \%$

$0.05 = 5 \%$

$0.11 = 11 \%$

$0.81 = 81 \%$

**Convert Percent to Decimal**

$87 \% = 0.87$

$55 \% = 0.55$

$50 \% = 0.5$

$86 \% = 0.86$

$21 \% = 0.21$

$34 \% = 0.34$

**Convert Decimal to Fraction**

$0.73 = \frac{73}{100}$

$0.3 = \frac{3}{10}$

$0.8 = \frac{8}{10} = \frac{4}{5}$

$0.41 = \frac{41}{100}$

$0.12 = \frac{12}{100} = \frac{3}{25}$

$0.55 = \frac{55}{100} = \frac{11}{20}$

**Convert Fraction to Decimal**

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

$\frac{6}{10} = 0.6$

$\frac{9}{25} = 0.36$

$\frac{17}{20} = 0.85$

$\frac{9}{20} = 0.45$

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

**Convert Fraction to Percent**

$\frac{9}{10} = 90 \%$

$\frac{3}{25} = 12 \%$

$\frac{15}{20} = 75 \%$

$\frac{8}{10} = 80 \%$

$\frac{6}{20} = 30 \%$

$\frac{5}{25} = 20 \%$

**Convert Percent to Fraction**

$20 \% = \frac{20}{100} = \frac{1}{5}$

$72 \% = \frac{72}{100} = \frac{18}{25}$

$73 \% = \frac{73}{100}$

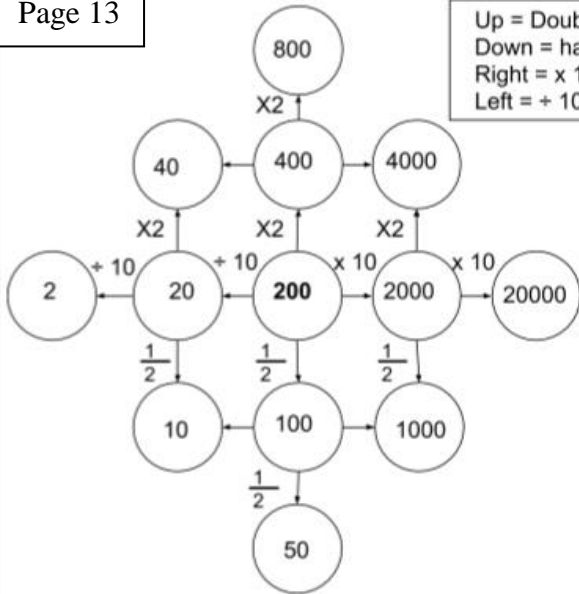
$65 \% = \frac{65}{100} = \frac{13}{20}$

$56 \% = \frac{56}{100} = \frac{14}{25}$

$76 \% = \frac{76}{100} = \frac{19}{25}$

Page 13

Up = Double  
Down = half  
Right =  $\times 10$   
Left =  $\div 10$



## Page 31

**Grammar Page 1**

Noun = house  
 Adjective = happy  
 Verb = smile  
 Adverb = swiftly

**Past/ Present Tense**

took  
 knew  
 brought  
 wrote

**Singular/ Plural**

boxes  
 calves  
 feet  
 geese

**Homophones**

know  
 there  
 weather  
 steel

**Apostrophes**

baby's  
 children's  
 month's  
 postmen's

## Page 32

**Grammar Page 2**

Noun = brush  
 Adjective = floppy  
 Verb = wander  
 Adverb = quickly

**Past/ Present Tense**

stand  
 meet  
 lose  
 build

**Singular/ Plural**

churches  
 children  
 edges  
 elves

**Homophones**

read  
 where  
 made  
 their/ veil

**Apostrophes**

Martin's  
 students'  
 Mike's  
 salesmen's

## Page 33

**Grammar Page 3**

Noun = bath  
 Adjective = warm  
 Verb = ran  
 Adverb = slowly

**Past/ Present Tense**

bit  
 built  
 ate  
 froze

**Singular/ Plural**

memos  
 knives  
 mice  
 heroes

**Homophones**

their/ tails  
 are/ pale  
 hole  
 leek

**Apostrophes**

you've  
 It's  
 he's  
 don't

**Synonyms**

Page 34

- 1) a) happening slowly  
 b) interruption  
 c) immediate  
 d) alone  
 e) followed  
 f) really

**Synonyms (Example Answers)**

Page 34

- 2) a) freedom  
 b) tasty  
 c) interested  
 d) dim  
 e) shake  
 f) jump  
 g) hit  
 h) ravenous  
 i) strange  
 j) taunt

**Synonyms**

Page 34

- 3) round = circular  
 right = correct  
 brave = courageous  
 gloomy = mournful  
 speedy = rapid  
 hard = difficult

## Page 34

**Synonyms for anger (Examples)**

- 4) crossness, annoyance, fury, rage, hatred, temper, displeasure, wrath

## Page 35

**Plurals**

cats  
 foxes  
 turkeys  
 ponies  
 calves  
 cuffs  
 kangaroos  
 fish  
 mice

## Page 35

**Opposites**

below  
 dull  
 idle  
 expensive  
 shallow  
 alive

## Page 35

**Compound Words**

baseball  
 somewhere  
 cannot  
 lifetime  
 become

## Page 35

**Prefixes**

misbehave  
 illegal  
 unhappy  
 incorrect  
 irrational

## Page 35

**Spelling**

apparent  
 environment  
 government  
 independent  
 persistent