

Dr Zargle's

GCSE Maths Past Papers & Model Answers

incorporating IGCSE Maths Past Papers

Maths Past Papers		Maths Model Answers		Popular Exam Topics	
Home	FAQs	Downloads & CD-ROMs		Student Comments	
About Us	Contact Us	GCSE Maths Revision Club		GCSE Science Papers	

Favourite Exam Questions and Topics

Below you will find 27 Favourite Topics that seem to appear regularly.

In each table you can see exactly which Year, *what* Paper *and what* Questionnumber where that topic appeared. So, for example, you can follow through the Question links to every question on Pythagoras asked since 1999.

Questions involving Pythagoras

Year	HIGHER		INTERMEDIATE	
	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Question 7	none	Question 19	none
2005	Question 4	none	Question 19	none
2004	Questions 9 & 18	none	Question 20	none
2003	Question 1	none	Question 12	none
2002	Question 7	none	Question 18	none
2001	Question 5	none	Question 16	none
2000	none	none	none	none
1999	Question 5	none	none	none

Comment: As you can see Pythagoras is a real favourite in the calculator papers - there has been at least one question on this topic every year since 2001.

Questions involving Dimensions of Expressions

Year	HIGHER		INTERMEDIATE	
	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	none	none	none	none
2005	none	Question 8	none	Question 20
2004	none	Question 2	none	Question 15
2003	none	Question 8	none	Question 21
2002	none	Question 9	none	Question 17
2001	none	Question 10	none	Question 24
2000	none	Question 12	none	Question 26
1999	none	Question 8	none	Question 15

Comment: Another favourite, this time of the non-calculator papers. As you can see there has been one question on this topic almost every year since 1999.

Questions involving Trial & Improvement

	HIGHER		INTERMEDIATE	
Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	none	none	none	none
2005	Question 3	none	Question 17	none
2004	Question 4	none	Question 15	none
2003	Question 4	none	Question 15	none
2002	Question 6	none	Question 13	none
2001	Question 6	none	Question 17	none
2000	Question 2	none	Question 14	none
1999	none	Question 3	none	Question 11

Comment: As you can see this has been asked almost every year since 1999 so it is well worth revising thoroughly.

Questions involving Vectors

	HIGHER		INTERMEDIATE	
Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Question 13	Question 17	none	none
2005	none	Question 22	none	none
2004	none	Question 17	none	none
2003	none	Question 23	none	none
2002	none	Question 16	none	none
2001	none	Question 16	none	none
2000	none	Question 20	none	none
1999	none	Question 13	none	none

Comment: Another topic which has been asked every year since 1999 in the Higher non-calculator papers - a MUST for revision!

Questions involving Transformations

	HIGHER		INTERMEDIATE	
Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Question 10	Question 24	Question 22	Question 10
2005	Question 20	Questions 3 & 20	none	Questions 1 & 14
2004	none	Questions 12 & 20	none	Question 10
2003	Question 20	Questions 6 , 21 & 24	none	Questions 7 & 19

2002	none	Questions 7 & 17	none	Questions 1, 7 & 20
2001	Question 20	Question 15	Question 11	none
2000	none	Question 6	none	Question 22
1999	none	Question 12	none	Question 2

Comment: Another extremely popular question. But dont forget Transformations can mean transformations of graphs, enlargements, reflections, rotations, stretches etc. As you can see there has been a question on this topic every year since 1999. In the Higher tier in 2003 there were 4 Questions involving transformations in some form or another! Another MUST for revision.

Questions involving Algebra

	HIGHER		INTERMEDIATE	
Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Questions 6, & 20	Questions 10, 18, 22 & 23	Questions 2, 4, 18 & 27	Questions 8, 12 & 22
2005	Questions 1, 6, 12 & 18	Questions 1, 4 & 21	Questions 4, 9 & 21	Questions 3, 6, 11 & 15
2004	Question 21	Questions 7 & 19	Question 14	Questions 2, 11, 13 & 22
2003	Questions 15 & 18	Questions 11 & 20	Questions 5 & 6	Questions 1, 8, 11 & 27
2002	Question 20	Questions 6 & 12	Question 12	Questions 6 & 11
2001	Question 11	Questions 8, 14 & 20	Questions 5 & 22	Questions 5 & 22
2000	Questions 5, 12 & 17	Question 5	Questions 3 & 20	Questions 3 & 24
1999	Questions 4, 8 & 14	Question 5	Questions 13 & 17	Question 5

Comment: As you can see Algebra is examined every year without fail. This is essential revision.

Questions involving Trigonometry

	HIGHER		INTERMEDIATE	
Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Questions 12 & 23	none	Question 23	none
2005	Questions 10 & 19	none	Question 25	none
2004	Questions 9 & 18	none	Question 20	none
2003	Questions 10 & 14	none	Question 21	none
2002	Question 12	none	Question 22	none
2001	Question 10	none	none	none
2000	Question 9	none	Question 22	none
1999	Question 5	none	Question 16	none

Comment: In the Higher calculator Paper 6, Trigonometry has come up every year since 1999. These are the same harder questions that you find near the end of Intermediate Paper 4.

Questions involving Standard Form

	HIGHER	INTERMEDIATE
--	--------	--------------

Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	none	Question 9	none	Question 21
2005	Question 9	none	Question 24	none
2004	Question 5	none	Question 16	none
2003	Question 9	Question 10	Question 20	Question 23
2002	Question 11	none	Question 21	none
2001	Question 8	Question 6	Question 19	Question 21
2000	none	Question 2	none	Question 21
1999	none	none	none	Question 17

Comment: This is a favourite of both papers and has come up every year since 1999.

Questions involving a Circle Problem

	HIGHER		INTERMEDIATE	
Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	none	Question 15	none	Question 27
2005	none	Question 14	none	Question 26
2004	Question 17	Question 16	none	Question 25
2003	none	Question 12	none	Question 25
2002	none	Question 13	none	none
2001	none	Question 17	none	none
2000	none	Question 17	none	none
1999	Question 15	none	none	Question 9

Comment: Another favourite. In the Higher papers it has been examined at least once every year since 1999.

Questions involving Histograms

	HIGHER		INTERMEDIATE	
Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	none	Question 19	none	none
2005	none	none	none	none
2004	none	Question 14	none	none
2003	none	Question 19	none	none
2002	Question 17	none	none	none
2001	none	Question 12	none	none
2000	Question 11	none	none	none

1999	none	Question 16	none	none
------	------	-----------------------------	------	------

Comment: A favourite only of the Higher Papers - with the exception of 2005, there has been one Histogram question every year since 1990.

Questions involving Probability

Year	HIGHER		INTERMEDIATE	
	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Question 18	Question 5	Question 24	Question 15
2005	Question 16	Questions 9 & 13	Question 10	Questions 2, 21 & 23
2004	Question 14	Question 3	Question 23	Question 16
2003	Questions 11 & 19	Question 22	Question 22	none
2002	Questions 9 & 20	Question 8	Question 19	Question 10
2001	Question 21	Question 11	Question 1	Questions 4, 7 & 25
2000	Question 7	Questions 7 & 13	Question 18	Questions 17 & 25
1999	Question 7	Question 6	Questions 7 & 18	Questions 6 & 13

Comment: An extremely popular topic with at least one question in both calculator and non-calculator papers. A real MUST for revision.

Questions involving Percentages

Year	HIGHER		INTERMEDIATE	
	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Question 5	Question 13	Questions 5 & 17	Questions 3 & 23
2005	Questions 2, 7 & 14	none	Questions 14, 18 & 22	Question 5
2004	Question 12	none	Question 24	Question 5
2003	none	Question 2	none	Question 15
2002	none	none	Questions 7 & 16	Question 8
2001	Questions 3 & 4	none	Questions 8 & 14	Questions 2 & 14
2000	Question 8	none	Questions 7 & 19	Question 11
1999	Question 3	Question 9	Questions 3 & 5	Questions 1, 4 & 17

Comment: As you can see Percentage questions are everywhere in the Intermediate papers. They are also quite popular in the Higher papers too. Essential revision.

Questions involving Simultaneous Equations

Year	HIGHER		INTERMEDIATE	
	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Question 11	none	Question 27	none
2005	Question 8	none	Question 23	none
2004	Question 10	none	Question 21	none

2003	Question 7	none	Question 18	none
2002	Question 8	none	Question 17	none
2001	Question 9	none	Question 20	none
2000	none	none	none	none
1999	none	Question 7	none	Question 14

Comment: Every year since 2001 there has been a question on Simultaneous Equations - so they are another favourite.

Questions involving Area and/or Perimeter

	HIGHER		INTERMEDIATE	
Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Question 22	none	Questions 2 & 10	Questions 4 & 8
2005	Questions 4 & 13	Question 7	Questions 9, 12 & 19	Questions 5 & 19
2004	Question 16	Question 9	none	Questions 1 & 21
2003	Questions 5, 13 & 14	none	Questions 8, 9 & 16	none
2002	Question 5	none	Questions 6 & 15	Question 9
2001	Questions 1 & 15	none	Questions 9 & 12	Question 11
2000	none	none	Questions 1 & 5	none
1999	Question 2 & 9	Question 11	Questions 9 & 13	Question 16

Comment: A very popular topic as you can see. In 2003 there were even three questions concerning Area and/or Perimeter. The questions can mix in a bit of Algebra, Trigonometry, or Circle properties, especially in the Higher Papers.

Questions involving Solving Equations

	HIGHER		INTERMEDIATE	
Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Question 21	Questions 1 & 10	Question 13	Questions 12, 13 & 22
2005	Questions 12 & 15	Question 4	Question 9	Question 16
2004	Question 19	none	Question 13	none
2003	none	Question 3	none	Question 16
2002	Question 3	none	none	none
2001	Questions 2 & 11	Question 19	Question 13	none
2000	none	none	none	Question 13
1999	none	Question 2	none	Question 8

Comment: In some form or another being able to Solve an Equation is at the very heart of mathematics - and the examiners are very keen to test you on this. As you can see, since 2001 there has been a question on the Higher Paper each year. You have to know how to solve equations.

Questions involving Volume

	HIGHER	INTERMEDIATE
--	--------	--------------

Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	none	Question 3	none	Question 14
2005	none	none	none	none
2004	Question 8	Question 6	Question 19	Question 19
2003	Questions 1 & 12	none	Question 12	none
2002	Question 22	none	none	none
2001	none	Question 9	none	Questions 8
2000	Questions 4 & 10	none	Question 17 & 21	none
1999	Question 9	Question 15	none	none

Comment: Another very popular topic because it can test so much. For example, can you find the volumes of a cube? a cuboid? a prism? a pyramid? a sphere? a hemisphere? a cone? a cone with a hemisphere stuck to the base? And do you know how to recognise the dimensions of a volume?

Questions involving Straight Line Equations

	HIGHER		INTERMEDIATE	
Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Question 17	Question 12	none	Question 26
2005	none	Question 12	none	Question 25
2004	none	Question 10	Question 3	Question 24
2003	Question 6	none	Question 17	none
2002	Question 10	none	Question 20	none
2001	Question 19	none	none	none
2000	none	none	none	none
1999	none	none	Question 8	none

Comment: In the Higher papers there has been one question on this topic every year since 2001. Its a very important topic because of the overlap with science. Many experiments in science produce straight line graphs and scientists need to understand how to find the equations from the lines. So it is regularly tested.

Questions involving Cumulative Frequency

	HIGHER		INTERMEDIATE	
Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Question 16	Question 14	Question 28	Question 25
2005	Question 5	none	Question 20	none
2004	none	Question 13	none	Question 23
2003	none	none	none	none
2002	none	Question 10	none	Question 18
2001	none	none	Question 18	none

2000	none	Question 14	none	Question 29
1999	none	Question 10	none	Question 18

Comment: As you can see, in the Higher Papers Cumulative Frequency has come up 6 times in eight years, whereas in the Intermediate Papers it has come 7 times in the past eight years. Its quite a favourite because it can test how strong your understanding of statistics really is.

Questions involving Finding the n^{th} Term Formula

Year	HIGHER		INTERMEDIATE	
	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	none	none	Question 6	none
2005	none	none	none	none
2004	Question 7	none	Question 18	none
2003	none	Question 5	Question 7	Question 2
2002	none	none	none	Question 2
2001	none	Question 13	none	none
2000	none	Questions 8 & 15	Question 6	Questions 1 & 15
1999	Question 16	none	none	none

Comment: Intermediate paper - 8 Questions in 7 years. Higher Paper - 6 Questions in 6 years. A must for revision.

Questions involving Fractions & Ratio

Year	HIGHER		INTERMEDIATE	
	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Questions 2 & 14	none	Questions 5 & 20	Questions 3, 5 & 7
2005	none	Question 5	none	Question 18
2004	none	none	Questions 7 & 10	Question 6
2003	none	none	Question 4	Questions 3, 5 & 9
2002	none	none	none	none
2001	none	none	Question 8	Question 12
2000	none	none	Question 15	Questions 2 & 12
1999	none	Question 1	Questions 3 & 11	Questions 4 & 10

Comment: A real favourite of the Intermediate Papers as you can see, with 22 Questions in the past 8 years. A good understanding of Fractions & Ratio is assumed at the Higher level.

Questions involving Scatter Graphs

Year	HIGHER		INTERMEDIATE	
	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	none	none	Question 11	none

2005	none	none	none	Question 8
2004	none	none	Question 9	none
2003	none	none	none	none
2002	none	none	Question 11	none
2001	none	Question 1	none	Question 15
2000	Question 3	none	Question 11	Question 6
1999	Question 1	none	Question 12	none

Comment: More popular in the Intermediate papers with 8 questions in the past 8 years.

Questions involving Quadratics

Year	HIGHER		INTERMEDIATE	
	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Question 21	Questions 1 & 2	none	Questions 13, 16 & 22
2005	Question 15	none	none	none
2004	Question 17	none	none	none
2003	Questions 18 & 13	none	none	none
2002	Question 13	none	none	none
2001	Question 11	none	none	none
2000	none	none	none	none
1999	Question 14	none	none	none

Comment: This is an absolute must for Higher candidates. Being able to recognise and, more especially, to solve a Quadratic equation is a fundamental skill at GCSE.

Questions involving Similar Shapes

Year	HIGHER		INTERMEDIATE	
	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	none	Question 11	none	Question 24
2005	Question 11	Question 18	Question 26	none
2004	Question 11	none	Question 22	none
2003	Question 8	none	Question 19	none
2002	none	none	none	none
2001	Question 12	none	Question 23	none
2000	none	Question 10	none	Question 28
1999	none	Questions 11 & 15	none	Question 16

Comment: A popular question on both Higher & Intermediate papers, with almost one question each year.

Questions involving Prime Numbers & Factors

	HIGHER		INTERMEDIATE	
Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Question 4	Question 1	Question 16	Question 13
2005	none	Question 11	none	Question 24
2004	none	Question 4	none	Question 17
2003	Question 2	none	Question 13	none
2002	none	none	none	none
2001	none	none	none	none
2000	none	none	none	none
1999	Question 16	none	none	none

Comment: Often these Questions are connected to finding the HCF and the LCM , and for the last four years there has been something concerning Prime Numbers

Questions involving Tessellations

	HIGHER		INTERMEDIATE	
Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	none	none	none	none
2005	none	none	none	none
2004	none	none	Question 6	none
2003	none	none	none	none
2002	none	none	none	Question 7
2001	none	none	none	Question 3
2000	none	none	none	Question 5
1999	none	none	none	none

Comment: Often a favourite in the Intermediate papers.

Questions involving Cosine & Sine Rules

	HIGHER		INTERMEDIATE	
Year	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	none	none	none	none
2005	Question 19	none	none	none
2004	Question 16	none	none	none
2003	none	none	none	none
2002	Question 18	none	none	none
2001	Question 14	none	none	none

2000	Question 16	none	none	none
1999	Question 13	none	none	none

Comment: These are asked only in the Higher calculator papers, but apart from 2003 and 2006 they have appeared every year since.

Questions involving Upper & Lower Bounds

Year	HIGHER		INTERMEDIATE	
	Paper 6 (calculator)	Paper 5 (non-calculator)	Paper 4 (calculator)	Paper 3 (non-calculator)
2006	Question 19	none	none	Question 17
2005	Question 17	none	none	none
2004	Question 20	none	none	none
2003	Question 16	none	none	none
2002	Question 19	none	none	none
2001	Question 17	none	none	none
2000	none	Question 3	none	Question 19
1999	none	none	Question 19	none

Comment: Another regular topic - it has appeared in the Higher papers every year since 2000.

[Home](#) - [GCSE Maths Past Papers](#) - [GCSE Maths Model Answers](#) - [Popular GCSE Maths Exam Questions](#)
[GCSE Maths Revision](#) - [GCSE Maths Video Lessons](#) - [GCSE Science Past Papers](#)
[Downloads & CD-ROMs](#) - [Email Newsletter](#) - [FAQs](#) - [Student Comments](#) - [About Us](#) - [Contact Us](#)

Copyright, 1999 to 2007, GCSEMathsPastPapers.com - Supporting The Halo Trust

GCSE Maths Past Papers & Model Answers
 incorporating IGCSE Maths Past Papers