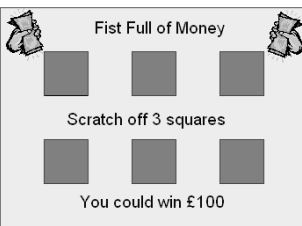


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**Fist Full of Money**



Scratch off 3 squares

You could win £100

**Scratch card instructions**

Each square hides an amount of money: £1, £10, £20 or £100.

3 of the squares hide the same amount of money.

Scratch off 3 squares. If the amounts match, you win that amount.

**Questions**

- What is the probability of winning?

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What's new about GCSE from 2010?

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**New national curriculum**

- New national curriculum programme of study is statutory for teaching in KS4 from September 2010.
- The new national curriculum emphasises process rather than content.

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### How will GCSE Mathematics change for teaching from 2010?

- Different assessment objectives.
- Greater emphasis on mathematical reasoning and problem solving.
- Incorporation of functional aspects of mathematics; GCSE Mathematics must allocate 20-30% on higher tier and 30-40% on foundation tier for the functional elements of mathematics.

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### What stays the same?

- GCSE continues to be available at either Foundation or Higher tier.
- It will be entirely externally assessed.
- There will continue to be a non-calculator assessment but this need not be 50% of the total.

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### Non-calculator assessment

- Current GCSE criteria: "A weighting of 50% of the overall assessment must be allocated to assessments in which candidates may not use a calculator. A weighting of 50% of the assessment must be allocated to assessments in which candidates are permitted to use a calculator."
- New GCSE criteria: "Each scheme of assessment must allocate a minimum weighting of 25 per cent, and a maximum weighting of 50 per cent, to assessment without a calculator."

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### Much the same

- There is no requirement to have specific percentages of marks on number, algebra, geometry and statistics but the papers still have to cover the content of the specification.
- There is no requirement to have specific percentages of marks targeted at particular grades but there will still be a range of difficulty of questions.

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### Quality of Written Communication

- GCSE qualification criteria say that GCSEs must “assess the candidates’ quality of written communication in accordance with the guidance documentation produced by the regulators”.
- Questions assessing this are denoted by an asterisk next to the question number.

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### The New Assessment Objectives

	Assessment objectives	Weighting (%)
AO1	recall and use their knowledge of the prescribed content	45–55
AO2	select and apply mathematical methods in a range of contexts	25–35
AO3	interpret and analyse problems and generate strategies to solve them.	15–25

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## Piloting of twin GCSEs

- Piloting starts for teaching from Sept 2010.
- AQA, Edexcel and OCR will each be piloting.
- "Applications of Mathematics" (focuses on the application of mathematics in a wide range of real world contexts)
- "Methods in Mathematics" (focuses on rigour and the coherent nature of mathematics)

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## Two GCSEs

- Students will be entered for both GCSEs.
- It is not the intention that the GCSEs are taught as separate courses.
- There is some additional content compared to the single GCSE.
- During the pilot, achievement of a grade C or above in either of the pilot GCSEs or the single award GCSE will count towards five GCSEs at grades A\*–C, including English and mathematics.
- Further information on MEI, QCDA and exam board websites.

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## Useful resources

- Exam board websites
- AQA GCSE Problem-Solving Questions, 2008 - Additional Mathematics
- [www.nrich.maths.org](http://www.nrich.maths.org) (for teachers)
- [www.mei.org.uk](http://www.mei.org.uk) (resources section)
- <http://www.oecd.org/dataoecd/14/10/38709418.pdf> (released items from PISA)
- <http://teamat.oxfordjournals.org/cgi/reprint/28/1/21.pdf> (Open start maths problems)

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