

Maths GCSE

Part 1 : Download a Specification

<https://qualifications.pearson.com/content/dam/pdf/GCSE/mathematics/2015/specification-and-sample-assesment/gcse-maths-2015-specification.pdf>

Part 2 : Making Notes

Answer these questions and bring your answers to your first maths lesson: (You may need to search on the internet if you do not readily know how to do them.)

- 1** **Fractions, Decimals, Percentages**
- Question 1** Increase £28 by 7% (2)
- Question 2** Use a calculator to work out: (1dp)
- 6.38 + 4.52
- 4.71 + 9.53 (2)
- Question 3** (i) Round 14.537 to 2 significant figures (1)
- (ii) Calculate $1\frac{1}{2} \times 1\frac{1}{2}$ (3)
- Total ___ / 8**

- 2** **Algebra**
- Question 1** If $y = 3x^2 + 4$, find the value of y when $x = 2$ (1)
- Question 2** Simplify $2x + 5y - x + 3y$ (1)
- Question 3** Simplify $2x^2 \times 9x^3$
- 3x (2)
- Question 4** Solve $3x + 7 = 25$ (1)
- Question 5** Solve $3x + 7 = 1$ (1)
- Question 6** Solve $3x + 7 = x + 6$ (2)
- Total ___ / 8**

- 3** **Geometry**
- Question 1** Two angles in a triangle are 34° and 68° . What is the size of the third angle? (1)
- Question 2** Calculate the interior angle of a regular nonagon (3)
- Question 3** The two smaller sides of a right-angled triangle are 12cm and 16cm. Calculate the length of the hypotenuse (4)
- Total ___ / 8**

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4 Averages

Question 1 Calculate the mean , mode , median and range of the following numbers: (4)
11, 13, 10, 13, 9, 14, 10, 18, 14, 12, 13

Question 2 Calculate the mean mark for the data given in the table below (4)

Marks (x)	Frequency
$0 \leq x < 20$	6
$20 \leq x < 30$	17
$30 \leq x < 40$	22
$40 \leq x < 50$	45
$50 \leq x < 60$	26
$60 \leq x < 70$	19

Total ___/ 8

5 Graphs

Question 1 Using axes with values of x and y from -5 to $+5$, draw the following graphs: (2)
(a) $y = x$ (2)
(a) $y = 2x + 1$ (2)
(a) $y = 3 - x$ (2)
(a) $2y + x = 4$ (2)

Total ___/ 8

6 Factors, Multiples, Primes

Question 1 Write down the first four multiples of 12 (2)

Question 2 Express 72 as a product of its prime factors (2)

Question 3 Two buses leave the station at midday. Bus 18 drives a complete circuit of its route in 18 minutes. Bus 15 completes its route in 15 minutes. What is the next time both buses are in the station together? (4)

Total ___/ 8

7 The Four Operations (Non – Calculator)

Question 1 $2934 + 1548 =$ (2)

Question 2 $7135 - 1548 =$ (2)

Question 3 $934 \times 78 =$ (2)

Question 4 $731 \div 17 =$ (2)

Total ___/ 8

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Part 3 : Exam Style Questions

1 Given that $1793 \times 185 = 331\,705$

write down the value of

(a) 1.793×185

(b) $331\,705 \div 1.85$

2 Mr Mason asks 240 Year 11 students what they want to do next year.

15% of the students want to go to college.

$\frac{3}{4}$ of the students want to stay at school.

The rest of the students do not know.

Work out the number of students who do not know.

Part 4: Extension Work

Go to [methodmaths.com/login](https://www.methodmaths.com/login) and use your login to complete as many of the OLDER TEST PAPERS as you can.