OCR
RECOGNISING ACHIEVEMENT

GCSE

Mathematics B (MEI) (Two Tier)

General Certificate of Secondary Education **GCSE J519**

Reports on the Units

January 2010

J519/R/10J

OCR (Oxford Cambridge and RSA) is a leading UK awarding body, providing a wide range of qualifications to meet the needs of pupils of all ages and abilities. OCR qualifications include AS/A Levels, Diplomas, GCSEs, OCR Nationals, Functional Skills, Key Skills, Entry Level qualifications, NVQs and vocational qualifications in areas such as IT, business, languages, teaching/training, administration and secretarial skills.

It is also responsible for developing new specifications to meet national requirements and the needs of students and teachers. OCR is a not-for-profit organisation; any surplus made is invested back into the establishment to help towards the development of qualifications and support which keep pace with the changing needs of today's society.

This report on the Examination provides information on the performance of candidates which it is hoped will be useful to teachers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding of the specification content, of the operation of the scheme of assessment and of the application of assessment criteria.

Reports should be read in conjunction with the published question papers and mark schemes for the Examination.

OCR will not enter into any discussion or correspondence in connection with this report.

Any enquiries about publications should be addressed to:

OCR Publications
PO Box 5050
Annesley
NOTTINGHAM
NG15 0DL

Telephone: 0870 770 6622
Facsimile: 01223 552610
E-mail: publications@ocr.org.uk

CONTENTS

General Certificate of Secondary Education

Mathematics B (MEI) (Two Tier) (J519)

REPORTS ON THE UNITS

Chief Examiner's Report

Although this was a January examination, there were a number of high scores on all the papers indicating that not all the candidates were resit candidates. All the papers differentiated well with marks over most of the range. This was so even in unit B294 where the candidature was very low. There remained, however a small number of Higher Tier candidates who appeared better suited to the Foundation papers.

Some principal examiners comment on either the lack of, or very muddled, working. Candidates should realise that, where more than one mark is allocated to a question, part marks will be awarded for correct work, even if the answer is wrong. A wrong answer with no working can only score zero. The lack of working is clearly more marked in the calculator sections where candidates should be encouraged to write down the expressions to be evaluated before using the calculator.

It is still the case that questions where verbal reasoning responses were required were poorly done by many candidates. In many cases there are standard responses which candidates can be trained to give. These include the standard reasons in the specification for geometrical facts and the standard comparisons of average and spread that are made in Statistics. Of course there will always be a number of questions of this type which really test a depth of understanding and for which there is no standard response.

At both Foundation and Higher Tiers, arithmetic remains a problem for candidates on the non-calculator sections. Even Higher Tier candidates are often hindered by their inability to carry out simple processes. Fractions particularly are a problem and many candidates simply omit fraction questions. Division seems an alien concept to many candidates. Even on the calculator sections repeated addition or subtraction is often seen.

B291 Foundation Paper 1

General Comments

This was the modular paper for the Foundation Tier of MEI. Section A was non-calculator.

Candidates appeared to have plenty of time on both sections.

Questions 7, 8, 16 and 17 were common, all or in part, with questions 2, 4, 10 and 9, respectively of Paper 3.

There was a good range of marks, with 10% of students earning 80% or more of the total marks available.

It is disappointing that we continue to see repeated addition instead of multiplication, and multiplying three numbers together proved very difficult, with little sign of any strategy being used.

Comments on Individual Questions

SECTION A

1 Candidates generally showed a good understanding of number in all parts of this question.

2 The ideas of fraction and percentage seemed to be well understood, though candidates found equivalent fractions a little more challenging.

3 Usually, only identification of the chord or sector caused problems, though a small number of candidates appeared to have picked labels randomly. One enterprising student drew, and labelled correctly, a tangent, perhaps to put the examiners straight in case they thought the chord was a tangent.

4 Credit was given to candidates who used the wrong number of acts and/or intervals, but could deal successfully with adding times. Many candidates thought 135 minutes was 1 hour 35 minutes. This question differentiated quite well across the range of abilities.

5 In part (a), little algebra, but many correct answers were seen.
In part (b), 3s, with $s = 3$, was often evaluated as 34 or 3 + 4.
Part (c) was often correct, though 10 was a common wrong answer.

6 In part (a), understanding of place value was generally good.
The most common error in part (b) was to subtract, either 60 from 240, or 1 from 4. In the latter case the airship was seen as “three times as much again” rather than “four times as long”.
In (c), part (ii) had significantly fewer correct solutions than part (i), perhaps because students find dividing so difficult.
Many, with correct intentions in part (d) could not multiply correctly. Others added areas, or just the three dimensions given in the question. Where units were given, metres, square metres and cubic centimetres were seen.
In part (e), a good number of candidates gave correct answers. Others had a correct method but lacked arithmetic skills.

7 Part (a) was often well done, though some didn't suggest any particular types of vehicle.
In part (b), few used the hoped-for "leading question". Many questioned whether a bypass would make the village safer and many thought you shouldn't have a question with a yes/no answer.
In part (c), Many envisaged the questionnaire being given to the children, and gave sensible criticisms of this policy.
This question was not a particularly good differentiator.

8 It was good to see completely correct solutions to this rearrangement of the formula in part (a), though this was not accessible to lower scoring candidates.
Candidates in the top half of the range gave good solutions to part (b) with the commonest error, as expected, being to multiply the powers to get 12.

SECTION B

9 Part (a) was high scoring. A few added faces to the first row of the diagram, usually opting for one face per person. If they were consistent they could still earn most of the marks.
In part (b), there was the usual confusion between types of average, with the mean frequently being found. However there were many correct solutions.

10 The commonest errors in part (a) were to confuse area and perimeter, or simply to miscount. Area was more often correct, probably because it is easier to count squares than edges.
In part (b), 16 was a common wrong answer, possibly considering it as a $4 \times 4 \times 1$ solid.

11 This shopping problem was well done, with just a few arithmetic errors.

12 A good understanding of the probability line was demonstrated, though there was some tendency to feel that if something is almost, but not quite, certain, then D rather than E is the reading to choose.

13 The rounding in part (a) was less well done than the calculation of square and square root in part (b), which was high scoring. The reciprocal in (c) was beyond most candidates, and very few correct answers were seen.

14 Candidates coped well with the number machine, with slightly better results for the reverse operation than for the fractional input in (b).

15 There were good solutions to this graphical question, though some tried to make a pattern with the *y*-coordinates, and failed. Most, who plotted correct points, joined them with a line. In (c), some just marked the point (0, 3), but about a third of candidates plotted the correct line.

16 It was pleasing to see good answers to this question. Some realised they needed to square something, but chose the price rather than a dimension. Others were fairly sure that Tony was right.

17 Few earned part marks in this question. If they used Pythagoras' Theorem, they could generally find the correct answer.

B292 Foundation Paper 2

General Comments

This was the first January sitting for the Foundation paper B292. Entries were a mixture of retakes and early entries.
Candidates appeared to have sufficient time to complete each section of the paper.

There was less evidence of candidates not having a calculator for section B than in last year's B262 paper. Fewer answers were overwritten or unclear; however some candidates still lost marks due to unclear dots which may or may not have been decimals. Any dot within a line of digits is taken to be a decimal point.

Compared to last year, candidates were much more willing to attempt questions that ask them to give a verbal explanation. The explanations provided were often good, but not necessarily well written. Centres should begin to prepare for the fact that quality of written communication will be assessed when this autumn's new mathematics specifications commence.

Candidates should be strongly encouraged to produce carefully checked work for this paper. Many marks which candidates could have gained were lost due to lack of sufficient attention to accuracy of calculation, transcription or drawing.

Comments on Individual Questions

SECTION A

1 Almost all candidates were able to gain some success with this question, yet few gained all 4 marks. Candidates often missed the fact that there were 10 parcels in the third line.

2 This was a straightforward question for stronger candidates, but weaker ones could not do part (c); a common error was to give ¾ as 0.34

3 Most candidates correctly identified Train A as the quickest one, but some struggled to calculate the time gaps. The simple question on speed produced good answers from most candidates, but some quite strong candidates had clearly not been sufficiently prepared in this topic.

4 This was surprisingly poorly answered with almost half of candidates unable to add 1¼ and ½. Even fewer were able to estimate the answer to a large multiplication sum. However, it was pleasing to see that around 70% of candidates were able to find 90% of 30 for part (d).

5 This question was similar to ones in previous papers. Part (a) was the worst answered, usually because candidates still forget that 'multiplication before addition' is the rule. It was very common to see '26' as the answer to this part. The other parts were better answered.

6 This question was generally well answered, although a significant number of candidates could not reduce the fraction in part (a) to its simplest form; many gave $^{5}/_{25}$ as their final answer.

7 Parts (a) and (b) were generally very well answered. The candidates who dropped marks mostly did so due to not taking sufficient care over accuracy.
Part (c) was poorly answered. There was some evidence that the concept had been taught in some centres, with candidates using the words 'discrete' or 'continuous', although an informal explanation was equally acceptable. However many erroneous answers concerned ideas of correlation, or pointed to the fact that the 'line' would not go through the origin.

8 This question was generally well answered at the earlier stages. On part (d), many students who had recognised the patterns, still doubled the result for a 2 by 6 stage to get the incorrect answer of '10'. Part (e) was answered well by strong students.

9 This question produced a good spread of marks. Weaker candidates, perhaps not surprisingly, were unable to score anything on these last 3 questions of section A. Strong ones could usually get 5 or 6 marks here. Careless mistakes in plotting or reading the graph were the cause of some dropped marks. Where the candidates were asked to describe the correlation in part (c), there was evidence that this topic had been well taught. However some candidates did not take sufficient care when drawing a line of best fit to ensure a good balance of points above and below the line. Those who produced some attempt at the best fit line were mostly able to read from it in part (e), although some read off the wrong axis.

10 Only the strongest candidates were able to score on this question, and formal methods of showing an inequality on a number line, or solving a linear inequality were rarely seen. Candidates were credited for showing a conceptual understanding in part (a)

11 This algebra question was better answered than question 10, but was still beyond many candidates. Strong candidates presented good step-by-step solutions. Weaker ones could often gain part marks for multiplying out the bracket, or for taking terms to one side, but they did need to do this within an equation form to get method marks. A very small number of candidates did manage to find the solution by trial methods.

SECTION B

12 This question was generally well answered in parts (a) and (b). Few candidates, however, knew what the perpendicular line should look like, some drawing a vertical line, but many omitting this line altogether.

13 All candidates recognised at least one shape, but almost half, disappointingly, could not name all three. The parallelogram (which was often mistaken for a rhombus) and the trapezium caused roughly the same number of missed marks.

14 In this question almost all candidates were able to gain some success. The explanation questions produced some good answers. Again marks were lost due to insufficient care being taken in filling in the tallies or in fully labelling the axes of the graph.

15 Strong candidates usually gained full marks on this question, with part (a) done especially well. Weaker ones often omitted one of the multipliers in part (a). Most candidates recognised that part (b) required a division sum, but were less sure what to divide by; some simply divided by 10.

16 Many candidates were able to score at least 1 mark by working out 4% of 2500, or by attempting 12% of it. Several of them then went on to work out compound interest instead of simple interest.

17 As was expected, many more candidates were able to tackle part (a) than part (b). They usually compared 4 small bottles with the large bottle. Even here there was evidence of careless calculation errors. A few used a unitary method successfully, whereas in part (b) candidates could often find unitary values, but found it hard to interpret them.

18 This question, which tested candidates understanding of the steps in a proof, produces a good spread of marks. Many candidates could do part (a) and gain part marks for (b). There was evidence that candidates were not connecting the two parts of the question, with alternate angles used in one part, but then ignored in the other part.
Weaker candidates tended to feel that x, y and z had to be equal and gave m as 60°.

19 Candidates were not very effective at describing a single transformation. There were a few well-prepared candidates who did so concisely, these usually went on to gain success with the other parts too. But many candidates tried to both rotate and translate. Some omitted the word 'rotation', and many neglected to give a centre of rotation.
Part (b) was generally well answered, with some losing marks due to lack of care.
In part (c) it was very pleasing to see the number of candidates who could identify the line $x = 1$. However, even those who identified this line often placed their reflection as though using the line $x = ½$, presumably thinking the left edge should be $x = 1$.

20 Only the very strongest candidates were able to gain more than 2 marks on this question. In particular, the formula for density was rarely known, although many candidates had clearly met the concept as they often attempted some calculation involving division. (So a common answer was 2400/3 = 800).
Part (a) was better answered by stronger candidates, although some tried to multiply instead of dividing, getting an answer of 3600.

21 Roughly equal numbers of candidates gained 0, 1, 2 or 3 marks out of 4. Part (c) was only answered by the very strongest candidates.
It was good to see many candidates attempting to plot their points even when they were unconfident about these points. This enabled weak candidates to gain another mark. Many candidates did not attempt to join points in a smooth curve, simply plotting the graph as discrete values. Those that did often produced very pleasing parabolic curves.

22 Few candidates were able to tackle part (a), but it was good to see that over 60% could answer part (b) on standard form. This was the first time that this part of the syllabus had been assessed, so candidates' success was evidence of good syllabus coverage by centres.

B293 Higher Paper 3

General Comments

The paper differentiated well with marks ranging from ten to the high sixties. However, there are still a few candidates who would find the Foundation Tier paper a more rewarding experience. Overall the general standard seemed to be about the same as last January, though there were one or two tricky questions where even the better candidates struggled to apply their knowledge.

Candidates seemed to have sufficient time to complete the paper.

Working was usually shown but sometimes appeared as a jumble of figures and algebraic expressions. Candidates should be aware that marks are awarded for working even if the answer is wrong and so it is worthwhile to make sure that it is legible and coherent.

Comments on Individual Questions

SECTION A

1 In part (a), a number of candidates were unable to apply the basic operations to fractions.
Part (b) was generally well answered. However, there were a number who did long multiplication and then division before approximating their answer, rather than approximating the numbers first to 20, 30 and 300.

2 In part (a), some responses indicated that these candidates had not considered how such a data sheet might be used if they had set out to conduct a survey of traffic.
What was required in part (b) was that this was a leading question. Many candidates gave responses relating to the answers to the question rather than say anything about the question itself.
Many candidates gave similar reasons for both answers in part (c), and so only gained one mark.

3 For the stem and leaf diagram, a small number of candidates failed to check the number of values entered in the diagram against the number of items of data given. A key is an essential part of the diagram and a number of candidates missed this out. It is good practice to draw an unordered stem and leaf diagram in the working space, entering the numbers in the order they occur, and then the ordered one in the answer space. This usually ensures none are omitted.
In part (b), the usual error was to pick out the middle value from the stem and leaf diagram and fail to add in the branch, thus giving the answer as 7 rather than 27.

4 Part (a) was usually done well.
In part (b), as expected, a few wrote p^{12}, but the answer was usually correct.
In part (c), a few candidates were unable to perform the basic steps of multiplying both sides by 4 and collecting terms. There were also a few arithmetic slips.

5 This question was not well done. A significant number of candidates saw that the side of one triangle was 2 cm less than on the other triangle and so took 2 away from 4.8 rather than use a scale factor.

6 This question was also poorly done.
In part (a), many candidates did not understand that "the sum" in this context meant adding up the three algebraic expressions to obtain $3n$. Those that did usually failed to make any comment on its divisibility by 3.
Most candidates did understand what had to be done in part (b)(i), but then did it incorrectly. Most candidates wrote $(n-1)^2 = n^2 - 1$ and then, to get the +2 they 'fudged' the signs. Missing out the $-2n$ and the $+2n$ gave the correct answer from incorrect working and so earned no credit. It may be that there were a few candidates amongst this large number who knew that these terms cancelled out, but these candidates need to understand that the requirement to "show that" does require all the steps to be seen by the examiner who cannot see what has been done mentally.
Those that got part (ii) correct either asserted that, since $3n^2$ was divisible by 3, it follows that $3n^2 + 2$ could not be or they wrote down a single counter-example.

7 The topic of quadratic functions and equations seemed to be largely unknown by candidates.
In part (a) completing the square was usually incorrect.
In (b)(i), even if candidates had got $(x + 2)^2 + k$, only a very small number realised that the minimum value, when $x = -2$, was k.
(ii) Although the question stated that the answer to (a) should be used to solve the quadratic by completing the square, many started again with the formula. This was accepted, but most candidates were unable to reach the correct solution.

SECTION B

8 Part (a) was usually correct.
In part (b), the idea of average speed being total distance divided by total time was missed by many.

9 This standard Pythagoras question was not understood by a surprising number of candidates, many of whom found the area or the distance from one corner to the other by going round the edge of the garden.

10 A small number of candidates did not realise that it was necessary to work with areas in this question. Those, who did so, often failed to comment about the correctness of Gordon's statement. A very small number used the elegant method of calculating the ratio of the squares of the diameters, finding it to be greater than 2, but most involved π in their working.

11 This question was answered correctly by the majority of candidates.

12 This topic was not fully understood by many candidates. Many found an answer by trial and error and were credited only if they obtained the correct answer to one decimal place. Quite often they did not do so, deciding the answer was 4.5% or even 4% or 5%.

13 The application of simple probability to a real life situation was not fully comprehended by most candidates and the number who obtained the correct answer was small. Many, rather than work on a probability model, decided that 20 fish had been caught, 2 of which were tagged and so 18 tagged fish were still in the lake making 38 in all.

14 This question was largely correct. Some tried it by trial and error. Such candidates often got part (a) correct but not (b).

15 In part (a), a number of candidates made errors in the table.
In part (b), the general shape of a cubic curve appeared not to be known by many candidates. If they had known what to expect, they may have been able to identify errors in the table in part (a).
Many candidates, who got both the table and plotting correct, were unable to draw a satisfactory curve through the points.
These problems in drawing the curve often led to roots of the equation being either inaccurate or omitted.

16 Part (a) depended on the ability to find the area of a triangle using the formula Area = $\frac{1}{2}ac\sin B$. Many assumed that "half the base times the height" could be applied with the numbers given. Others found the third side assuming that the angle at A was 90º.
Part (b) was marked on a follow through basis. A number of candidates, who used the right formula, took $\frac{1}{3}$ to be 0.3 leading to an inaccurate answer.
In part (c), multiplication by 2.6 was also followed through and a significant number got this mark.

B294 Higher Paper 4

General Comments

Despite the low candidature the paper differentiated well, with marks ranging from twenty to the mid nineties. There were few candidates who scored very low marks as most candidates were able to pick up marks on the early questions in each section that were targeted at grades D and C.
There were some candidates who had not been prepared for some of the more demanding topics like vectors and solving linear and quadratic simultaneous equations. This is perhaps understandable as many January candidates are sitting for the second time.

Candidates appeared to have sufficient time for the paper.

Essential working was usually there, though often scattered around in a fairly disorganised manner.

Comments on Individual Questions

SECTION A

1 This question provided a wide range of responses. Most could make a reasonable attempt at the quadrilateral but this was often inaccurate. Those using a pair of compasses and showing their arcs (expected for full marks) were by far the most accurate.
Part (b) was less well done with many attempting other lines like perpendicular bisectors or the diagonal BD. Those who knew what was required usually used a pair of compasses and showed their arcs, (again required for full marks). A few omitted this part.

2 This question was very well done. Almost all gained the marks in parts (a) and (b) with just a few misreads of the scale or *x/y* reversal. Most gave 'positive' in (c) with just a few 'negative'. In parts (d) and (e) most were able to draw a suitable line of best fit and use it correctly. Just a few had a severe mismatch of points on either side or drew a curve or joined the points point to point.

3 This was well done. On this occasion in part (a), with only one mark available, candidates were not expected to indicate that $x = 2$ was included. In part (b) there were just a few errors such as $2x < 22$.

4 Many candidates ignored the given information about prime factors. In part (a) many gave other common factors (eg 2, 6, 10, 15) and not the highest. In part (b), some confused LCM with HCF and others gave other common multiples rather than the lowest.

5 This question was done well. The most common errors were in the expansion of $4(x + 2)$ or sign errors in isolating the x and number terms.

6 This question was less well done. Many candidates had more trouble with the arithmetic than the standard form. In part (a) some struggled with $4.5 \div 3$. In part (b) most changed the numbers to ordinary numbers and then subtracted but some forgot to change back to standard form. Just a few were successful with an approach like changing 1.5×10^8 to 0.15×10^9.

7 Very few gained full marks for part (a)(i) with many thinking that 4/35 produced a terminating decimal. Quite a number gained 1 mark for only one error. In part (ii), very few knew that prime factors of 2 and/or 5 only were required to produce a terminating decimal. Those who tried to divide in the fractions rarely reached a sufficient stage to justify decisions on recurring.
In part (b), although there were many good solutions, many candidates use 72/100.

8 In part (a) many candidates made very vague statements like the girls are more even and often implied that the females were less varied when in fact the histograms showed that the females were more varied. The expected comparisons were that the females were on average older as evidenced by the higher mode and that the males were more consistent (or less varied). Better candidates were able to gain some success with part (b) but very few were able to estimate the half way point in area for (c). This was probably understandable as part (c) was targeted at grade A* candidates.

9 The best candidates did part (a) fairly well although some used a + b instead of – a + b. What defeated most candidates was the simplification where most could not cope with the fractions. Just a few gained success with part (b) and here simplification was not required so it was marked at the stage where the correct answer was first seen.

10 Part (a) was not well done with only the best candidates being successful. Some could cope with multiplying the powers for the numerator but very few could subtract the powers for dealing with the denominator.
The better candidates were more successful with part (b) and there were some excellent solutions. Weaker candidates usually got no further than multiplying both sides by the denominator.

SECTION B

11 The first three parts were done well although some of the description, usually the centre of rotation, was often omitted in (a). Part (b) was almost always correct. In part (c) a few candidates reflected in $x = 0$ or $x = ½$, the latter presumably just drawing the left hand edge on $x = 1$. Part (d) was, of course, harder but many realised that the y component of the translation was 5 but often failed to correctly identify the corresponding mirror line.

12 Part (a) was quite well done although a few failed to give adequate reasons for the angles being equal or adding up to 180° or both. On this occasion 'Z angles' was accepted but candidates should learn the correct name, alternate angles, as stated in the specification.
Part (b) was also well done with most candidates recognising that angle MON was $2p$ but fewer reaching $180 – 2p$ for angle MTN.

13 In part (a), if the method was known, the correct answer was normally achieved. Weaker candidates could not find one quantity as a percentage of another. Even stronger candidates sometimes found the profit as a percentage of £700 instead of £522. Partial credit was given for this.
Candidates who recognised part (b) as a reverse percentage were almost always successful. Unfortunately far too many found 45% of £522 and subtracted. Higher level candidates should be realise that reversed percentage is likely to come up on the terminal paper.

14 About $^2/_3$ of the candidates recognised that the sequence in (a) was the square numbers and hence gave the correct answer n^2. Others thought it was linear. In (b) a similar proportion were successful, with the usual error being to give $n + 2$, confusing the 'term to term' rule with the rule for the nth term. Around half the candidates were successful with part (c) with a fairly even split between those who recognised that these were the squares 'moved along by one' giving $(n + 1)^2$ or recognising that the sequence was the sum of the two previous sequences leading to $n^2 + 2n + 1$.

15 The table in part (a) was almost invariably correct and the graph in part (b) was usually well drawn. Just a few lost the mark for the curve, either due to the quality of the curve or failing to join the points or joining with straight lines.
As was to be expected, part (c) proved more difficult and many errors were made in plotting $y = x – 2$. The marks for the solution were awarded on a follow through basis and so partial success was usually achieved.

16 Part (a) was only done well by the best candidates. Those who did recognise the simple method as 1 – P(both 6s) were often successful but those using longer methods rarely succeeded. Even those recognising the method often did not calculate (1/6) x (1/6). Part (b) proved the most difficult question on the paper. Most candidates did not recognise that the answer to part (a) was required and usually were working with 1/6 again. Nevertheless, there were just a few excellent solutions.

17 Those recognising this as a Sine Rule question did this well, though some made errors in transposing the rule or made calculator errors. Unfortunately a number tried right angle triangle techniques or Cosine Rule and therefore made no progress.

18 This question was set for the best candidates and the best candidates did it very well indeed. In part (a) many did not recognise this as a circle and it appears that some candidates were not prepared for this part of the specification. Those, that did recognise the circle, often omitted part of the description, eg the radius or centre. Many of the stronger candidates did try to substitute $y = x – 4$ into $x^2 + y^2 = 40$ but often the algebra defeated them. The usual errors were failing to expand the bracket properly and later sign errors. That said, there were a some excellent solutions to this question with about 20% gaining full marks.

Grade Thresholds

General Certificate of Secondary Education
Mathematics B (MEI) (Two Tier) (J519)
January 2010 Examination Series

Unit Threshold Marks

Unit		Maximum Mark	A*	A	B	C	D	E	F	G	U
B291	Raw mark	72	N/A	N/A	N/A	51	43	35	28	21	0
B292	Raw mark	100	N/A	N/A	N/A	67	55	43	31	19	0
B293	Raw mark	72	59	49	39	29	19	14	N/A	N/A	0
B294	Raw mark	100	71	58	45	32	21	15	N/A	N/A	0

Specification Aggregation Results

Overall threshold marks in UMS (ie after conversion of raw marks to uniform marks)

	Maximum Mark	A*	A	B	C	D	E	F	G	U
Foundation Tier	279	N/A	N/A	N/A	240	200	160	120	80	0

The total entry for the Foundation Tier was 394.

	Maximum Mark	A*	A	B	C	D	E	F	G	U
Higher Tier	400	360	320	280	240	200	160	N/A	N/A	0

The total entry for the Higher Tier was 45.

The cumulative percentage of candidates awarded each grade was as follows:

	A*	A	B	C	D	E	F	G	U	Total No. of Cands
Percentage in each grade	2.7	2.5	1.4	41.5	25.5	11.9	5.2	6.2	3.2	439
Cumulative percentage	2.7	5.2	6.6	48.1	73.6	85.4	90.7	96.8	100	439

439 candidates were entered for aggregation this series

For a description of how UMS marks are calculated see:
http://www.ocr.org.uk/learners/ums/index.html

Statistics are correct at the time of publication.

OCR (Oxford Cambridge and RSA Examinations)
1 Hills Road
Cambridge
CB1 2EU

OCR Customer Contact Centre

14 – 19 Qualifications (General)
Telephone: 01223 553998
Facsimile: 01223 552627
Email: general.qualifications@ocr.org.uk

www.ocr.org.uk

For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored

Oxford Cambridge and RSA Examinations
is a Company Limited by Guarantee
Registered in England
Registered Office; 1 Hills Road, Cambridge, CB1 2EU
Registered Company Number: 3484466
OCR is an exempt Charity

OCR (Oxford Cambridge and RSA Examinations)
Head office
Telephone: 01223 552552
Facsimile: 01223 552553