Notional Component Grade Boundaries

Edexcel International GCSE (9-1) qualifications

January 2022

Understanding linear component raw marks and subject marks

Components of International GCSE and reformed GCSE, AS and A level qualifications are all sat at the end of the course. Components are individual assessments, such as examinations or non-exam assessments (NEA), which each make up a linear qualification. These qualifications are all linear rather than modular, which means that there is no longer a need for the UMS marks you will have been familiar with in the past.

The component structure of qualifications

In linear qualifications, each component has a total raw mark. The components contribute a certain percentage to the qualification mark overall, but the contribution of the components may not be equal. This is because one component may represent a larger part of the qualification than the others (see example 2, below). When the contribution of components to the qualification is not equal, the component raw marks, when simply added together, may not reflect the percentage contribution of the components to the qualification. In such cases the raw mark for the assessment is scaled up or down by a weighting factor. The raw mark is multiplied by the weighting factor so that it reflects the contribution of the component mark to the qualification.

The scaled marks, known as subject marks, are then added together to form the overall subject mark.

Two examples are given below.

Example 1: no scaling is needed as the total raw mark for each component reflects the percentage contribution of each to the qualification.

The total raw marks of all components in a linear qualification will add up to the total subject mark **if** they all contribute to the qualification equally.

Component Title	Raw Marks	Contribution to the Qualification	Weighting Factor	Total Scaled Mark
Paper 1	50	25%	1.000	50
Paper 2	50	25%	1.000	50
Paper 3	50	25%	1.000	50
Paper 4	50	25%	1.000	50
Subject max mark	200	100%		200

Example 2: scaling is needed as the raw mark for one or more components does not reflect the percentage contribution.

Component Title	Raw marks	Contribution to the qualification	Weighting Factor	Total Scaled mark
Paper 1	60	35%	1.458	87.5
Paper 2	45	20%	1.111	50
Paper 3	45	25%	1.389	62.5
Paper 4	50	20%	1.000	50
Subject max mark		100%		250

How candidates' grades are determined

Table 1 – candidates sitting the qualification in example 1

Component title	**Marks for candidate A**	**Mark for candidate B**
Paper 1	10	40
Paper 2	25	15
Paper 3	30	20
Paper 4	20	10
Subject mark	**85**	**85**

Since the marks for each component in the qualification represent the correct percentage contribution, the component marks are simply added to give the overall subject mark. In this example, both candidates A and B have achieved 85 marks for the overall subject. Since they both have the same subject mark, candidates A and B will receive the same grade even though their component performances are very different.

Suppose the subject grade boundaries were 81 marks for a grade C and 93 marks for a grade B. Since a subject mark of 85 lies within this mark range, both candidates A and B will receive a grade C for the qualification.

Table 2 – candidates sitting the qualification in example 2

Component title	Raw mark for candidate C	Weighting factor	Scaled mark
Paper 1	12	1.458	17.496
Paper 2	24	1.111	26.664
Paper 3	31	1.389	43.059
Paper 4	20	1.000	20.000
		Total:	107.219
		Subject mark:	**107**

Table 2 shows the performance of candidate C in the example 2 qualification. The second column, 'Raw mark', shows the marks achieved on each of the four papers. Since the marks for the components must be scaled to represent the percentage contribution of each paper to the overall subject, the component marks must be scaled, using the weighting factor shown in column 3, to give the scaled mark shown in column 4 of the table. The scaled marks are totalled to give 107.291 which is, as a final step, rounded to the nearest whole number to give the subject mark of 107.

Suppose the subject grade boundaries were 101 marks for a grade D and 115 marks for a grade C. Since a subject mark of 107 lies within this mark range, candidate C will receive a grade D for the qualification.

Please note that footnote 1, relating to the example 2 table, explains the need for the weighting factor and that the scaled marks are calculated to the third place of decimal.

The use of notional component grade boundaries

The above examples, showing the grades achieved by candidates A, B and C, illustrate that notional grade performance at component level plays no part in the determination of a qualification grade. In fact, table 1 shows that both candidates achieve the same subject mark even though their component performances are quite different. Given this, why are notional component grade boundaries published?

When the subject grade boundaries are recommended by the senior examiners, it helps them to consider the component performance for a candidate who will achieve, say, a borderline grade A by producing a borderline grade A performance on each component.

For teachers, the notional component grade boundaries can be useful as an indicator of grade performance when, for example, an examination paper is used as a future mock examination.

Linear qualifications and deciding whether to submit a post-results service (PRS) request

Component-level grade boundaries in these linear qualifications are notional only, and do not equate to a certificated grade.

When considering whether to submit a post-results service request, it is important to understand that notional grade boundaries - or how close a candidate may be to one - are not relevant.

A change in a notional component-level boundary may not equate to a subject grade change. For example, if a learner achieves Bs in each of the two components for a reformed AS level the component grade would be a B. If, after a review of marking, a component mark changes, and the notional grade increases from a B to an A, the overall AS subject grade may still remain a B when the component scores are combined*.

*if, when combined with the other component scores, the revised total equates to an A grade, the subject grade would be changed accordingly.

Biology													
Notional component grade boundaries			**Max Mark**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**U**
4BI1	Biology Paper 1B	Raw	110	78	67	57	46	35	24	19	14	9	0
4BI1	Biology Paper 1BR	Raw	110	78	67	57	46	35	24	19	14	9	0
4BI1	Biology Paper 2B	Raw	70	50	43	37	30	23	16	12	9	6	0
4BI1	Biology Paper 2BR	Raw	70	50	43	37	30	23	16	12	9	6	0

Chemistry													
Notional component grade boundaries			**Max Mark**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**U**
4CH1	Chemistry Paper 1C	Raw	110	83	71	59	47	35	24	18	12	7	0
4CH1	Chemistry Paper 1CR	Raw	110	83	71	59	47	35	24	18	12	7	0
4CH1	Chemistry Paper 2C	Raw	70	53	45	38	30	23	16	12	8	5	0
4CH1	Chemistry Paper 2CR	Raw	70	53	45	38	30	23	16	12	8	5	0

English Language A													
Notional component grade boundaries			**Max Mark**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**U**
4EA1	English Language A Paper 01	Raw	90	67	62	57	50	44	38	28	18	9	0
4EA1	English Language A Paper 01R	Raw	90	67	62	57	50	44	38	28	18	9	0
4EA1	English Language A Paper 02	Raw	60	41	35	29	24	19	14	11	8	5	0
4EA1	English Language A Paper 02R	Raw	60	41	35	29	24	19	14	11	8	5	0
4EA1	English Language A Paper 03	Raw	60	52	47	43	38	33	28	22	17	12	0
4EA1	English Language A Paper 03T	Raw	60	52	47	43	38	33	28	22	17	12	0

English Language B													
Notional component grade boundaries			**Max Mark**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**U**
4EB1	English Language B Paper 01	Raw	100	67	59	52	45	38	31	23	15	7	0
4EB1	English Language B Paper 01R	Raw	100	67	59	52	45	38	31	23	15	7	0

English Literature													
Notional component grade boundaries			**Max Mark**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**U**
4ET1	English Literature Paper 01	Raw	60	40	36	32	27	22	17	12	7	3	0
4ET1	English Literature Paper 01R	Raw	60	40	36	32	27	22	17	12	7	3	0
4ET1	English Literature Paper 02	Raw	60	42	38	35	31	27	23	17	11	5	0
4ET1	English Literature Paper 02R	Raw	60	42	38	35	31	27	23	17	11	5	0
4ET1	English Literature Paper 03	Raw	60	52	47	42	37	33	29	22	15	8	0
4ET1	English Literature Paper 03T	Raw	60	52	47	42	37	33	29	22	15	8	0

Further Pure Mathematics

Notional component grade boundaries			Max Mark	9	8	7	6	5	4	3	2	1	U
4PM1	Further Pure Mathematics Paper 01	Raw	100	75	56	37	30	24	18	15			0
4PM1	Further Pure Mathematics Paper 01R	Raw	100	75	56	37	30	23	17	14			0
4PM1	Further Pure Mathematics Paper 02	Raw	100	74	54	35	29	23	17	14			0
4PM1	Further Pure Mathematics Paper 02R	Raw	100	74	54	35	29	23	17	14			0

Human Biology

Notional component grade boundaries			Max Mark	9	8	7	6	5	4	3	2	1	U
4HB1	Human Biology Paper 01	Raw	90	64	55	47	41	35	30	22	15	8	0
4HB1	Human Biology Paper 02	Raw	90	63	54	46	40	35	30	22	15	8	0

Mathematics A

Notional component grade boundaries			Max Mark	9	8	7	6	5	4	3	2	1	U
4MA1	Mathematics A (Foundation) Paper 1F	Raw	100					61	47	35	23	11	0
4MA1	Mathematics A (Foundation) Paper 1FR	Raw	100					57	44	32	21	10	0
4MA1	Mathematics A (Foundation) Paper 2F	Raw	100					58	43	31	20	9	0
4MA1	Mathematics A (Foundation) Paper 2FR	Raw	100					61	45	33	21	10	0
4MA1	Mathematics A (Higher) Paper 1H	Raw	100	70	57	45	33	22	11	5			0
4MA1	Mathematics A (Higher) Paper 1HR	Raw	100	66	54	42	31	20	10	5			0
4MA1	Mathematics A (Higher) Paper 2H	Raw	100	66	53	41	30	20	10	5			0
4MA1	Mathematics A (Higher) Paper 2HR	Raw	100	70	57	44	33	22	11	5			0

Mathematics B

Notional component grade boundaries			Max Mark	9	8	7	6	5	4	3	2	1	U
4MB1	Mathematics B Paper 01	Raw	100	66	52	38	28	19	10	5			0
4MB1	Mathematics B Paper 01R	Raw	100	64	51	38	28	19	10	5			0
4MB1	Mathematics B Paper 02	Raw	100	65	51	38	28	18	8	3			0
4MB1	Mathematics B Paper 02R	Raw	100	66	53	40	29	18	8	3			0

Physics

Notional component grade boundaries			Max Mark	9	8	7	6	5	4	3	2	1	U
4PH1	Physics Paper 1P	Raw	110	76	62	49	39	30	21	16	12	8	0
4PH1	Physics Paper 1PR	Raw	110	76	62	49	39	30	21	16	12	8	0
4PH1	Physics Paper 2P	Raw	70	49	40	32	25	19	13	10	7	5	0
4PH1	Physics Paper 2PR	Raw	70	49	40	32	25	19	13	10	7	5	0

Science (Double Award)

Notional component grade boundaries			Max Mark	99	98	88	87	77	76	66	65	55	54
4SD0	Science (Double Award) Paper 1B	Raw	110	78	72	67	62	57	51	45	39	34	29
				44	**43**	**33**	**32**	**22**	**21**	**11**			**U**
		Raw		24	21	18	15	13	11	9	0	0	0

Notional component grade boundaries			Max Mark	99	98	88	87	77	76	66	65	55	54
4SD0	Science (Double Award) Paper 1BR	Raw	110	78	72	67	62	57	51	45	39	34	29
				44	**43**	**33**	**32**	**22**	**21**	**11**			**U**
		Raw		24	21	18	15	13	11	9	0	0	0

Notional component grade boundaries			Max Mark	99	98	88	87	77	76	66	65	55	54
4SD0	Science (Double Award) Paper 1C	Raw	110	83	77	71	65	59	53	47	41	35	29
				44	**43**	**33**	**32**	**22**	**21**	**11**			**U**
		Raw		24	21	18	15	12	9	7	0	0	0

Notional component grade boundaries			Max Mark	99	98	88	87	77	76	66	65	55	54
4SD0	Science (Double Award) Paper 1CR	Raw	110	83	77	71	65	59	53	47	41	35	29
				44	**43**	**33**	**32**	**22**	**21**	**11**			**U**
		Raw		24	21	18	15	12	9	7	0	0	0

Notional component grade boundaries			Max Mark	99	98	88	87	77	76	66	65	55	54
4SD0	Science (Double Award) Paper 1P	Raw	110	76	69	62	55	49	44	39	34	29	25
				44	**43**	**33**	**32**	**22**	**21**	**11**			**U**
		Raw		21	18	16	14	12	10	8	0	0	0

Notional component grade boundaries			Max Mark	99	98	88	87	77	76	66	65	55	54
4SD0	Science (Double Award) Paper 1PR	Raw	110	76	69	62	55	49	44	39	34	29	25
				44	**43**	**33**	**32**	**22**	**21**	**11**			**U**
		Raw		21	18	16	14	12	10	8	0	0	0