



One of our free editable teaching units for AQA GCSE Computer Science 8520



Improve results

The following gives an overview of some of the key points and areas for students to improve on for the examination based on feedback from the 2018 examination series. This is not a replacement for the full examiner's reports which are still recommended for teachers to read.

Boundary data:

8520 – Paper 1 & 2

Each paper has 80 marks

Total marks available for the two examinations: 160

Grade	9	8	7	6	5	4	3	2	1
Mark required	140	130	120	106	92	78	58	39	20
% required	88%	81%	75%	66%	58%	49%	36%	24%	13%

All percentages are rounded to the nearest percent

Previous grade boundaries – 2015-17

Average grade boundaries for the previous written specification's examinations were as follows:

Grade	A*	A	B	C	D	E	F	G
Average '15-'17	84%	70%	54%	38%	30%	22%	15%	8%



Save hours of planning

**Improve results****8520 Paper 1****Key information**

Marks available	80
Calculator use	Not allowed
Time allowed	1h 30m
Resources	Black ink / ball-point pen
Question choice	Answer all questions

**Save hours
of planning**

1. Students need to read questions carefully as some are giving answers to questions they think are appearing rather than the actual question
2. In calculation questions, marks are often given for working. Students should make sure to show their working in case they make a mistake and the answer is incorrect.
3. Algorithms can be given as pseudocode or flowcharts unless the question explicitly states otherwise
4. If students make a mistake when drawing flowchart symbols these are unlikely to be penalised unless they make the algorithm unclear
5. Arrows coming out of decision symbols must be labelled to make an algorithm clear
6. Many students are performing badly when asked to trace through an algorithm. This is more the case on longer traces. Many are forgetting to do further iteration on a trace table where required
7. If candidates need to produce pseudocode, then string `← USERINPUT` will count as two statements – one for collecting user input, one for the assignment – this line of code may therefore be worth two marks
8. Students may be asked to explain **why** one algorithm is better than another – for example, for a sorting algorithm. 'Quicker' and 'faster' are not acceptable answers. They must explain why the algorithm is quicker or faster to gain a mark
9. This is also the case in programming code. If a more efficient code change is made, it is not acceptable to describe the improvement as 'faster' or 'uses less storage' unless there is an explanation of why this is the case
10. When drawing logic gate diagrams, students often use the incorrect symbols for gates

Note: This summary is the interpretation of PG Online and has not been through any accreditation process by the examination board.

**Improve results****8520 Paper 2****Key information**

Marks available	80
Calculator use	Not allowed
Time allowed	1h 30m
Resources	Black ink / ball-point pen
Question choice	Answer all questions

**Save hours of planning**

1. No calculator is allowed. Although calculations are easy, many students lose marks when simple addition, subtraction or multiplication is required for questions
2. Marks can be gained for working in calculations even if the answer is incorrect. Students will gain no marks if they don't show working and get the wrong answer
3. Students should make sure to read the question closely. For example, when asked to sort a list from smallest to largest or to give their answer in a certain format
4. If students are asked for an explanation of issues as they affect an organisation, many will give how they affect an individual rather than the organisation which limits marks available. Again, care needs to be taken with reading the question closely
5. When performing binary arithmetic, students can use any method they wish – for example, if they wish, convert to denary, perform the addition, then convert back, alternatively they can do the addition directly in binary which is often faster. The same applies for converting numbers between hexadecimal to binary where students, if they wish, can convert from hex to denary and then to binary
6. Common misconceptions about ROM are that it is usually used to store application software or that there is typically more ROM than RAM. Both these are incorrect
7. Students should be careful with vague answers. For cloud storage benefits it is not acceptable to write that it 'has more space' or 'costs less'. Correct answers would be 'it allows access to a larger amount of storage capacity' or 'it allows the purchase of a cheaper computer with less storage capacity'
8. Students are often confused about the differences between application software and system software
9. When giving the differences of WANs and LANs many students will say that 'WANs are larger'. This isn't acceptable. They need to say that a WAN links one remote geographical site/location to another
10. Many students, especially weaker ones, do not have their answers match the context of the question. For example – a travel agent that stores customer and business data electronically and needs to prevent infections from malware. Some students would mention keeping records on paper or disconnecting computers from the network. These would help to prevent infections but are not appropriate for the type of business and therefore are not given marks