

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use	
Examiner's Initials	
Question	Mark
1	
2	
3	
4	
5	
6	
TOTAL	



General Certificate of Education  
Advanced Level Examination  
June 2014

# Statistics

# SS05

## Unit Statistics 5

Wednesday 18 June 2014 1.30 pm to 3.00 pm

**For this paper you must have:**

- the blue AQA booklet of formulae and statistical tables.

You may use a graphics calculator.

### Time allowed

- 1 hour 30 minutes

### Instructions

- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- Write the question part reference (eg (a), (b)(i) etc) in the left-hand margin.
- You must answer each question in the space provided for that question. If you require extra space, use an AQA supplementary answer book; do **not** use the space provided for a different question.
- Do not write outside the box around each page.
- Show all necessary working; otherwise marks for method may be lost.
- Do all rough work in this book. Cross through any work that you do not want to be marked.
- The **final** answer to questions requiring the use of tables or calculators should normally be given to three significant figures.

### Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 75.

### Advice

- Unless stated otherwise, you may quote formulae, without proof, from the booklet.
- You do not necessarily need to use all the space provided.



J U N 1 4 S S 0 5 0 1

Answer **all** questions.

Answer each question in the space provided for that question.

**1** A milk processing plant fills cartons with milk using a machine. Alexis, the quality control engineer, selects 12 filled cartons at random and records the volumes, in millilitres, of milk contained in each carton. His results are as follows.

1220 1162 1237 1215 1157 1212 1191 1217 1135 1126 1148 1154

Investigate the claim that the standard deviation of the volume of milk delivered by the filling machine is 30 millilitres. Use the 5% level of significance.

Assume that the volume of milk delivered by the filling machine can be modelled by a normal distribution.

**[8 marks]**

QUESTION  
PART  
REFERENCE

**Answer space for question 1**



QUESTION  
PART  
REFERENCE

**Answer space for question 1**

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**Turn over ►**





QUESTION  
PART  
REFERENCE

**Answer space for question 2**

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QUESTION  
PART  
REFERENCE

**Answer space for question 3**

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QUESTION  
PART  
REFERENCE

**Answer space for question 4**

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QUESTION  
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QUESTION  
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**Answer space for question 4**

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QUESTION  
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REFERENCE

**Answer space for question 5**

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QUESTION  
PART  
REFERENCE

**Answer space for question 5**

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QUESTION  
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REFERENCE

**Answer space for question 5**

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QUESTION  
PART  
REFERENCE

**Answer space for question 6**

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QUESTION  
PART  
REFERENCE

**Answer space for question 6**

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QUESTION  
PART  
REFERENCE

**Answer space for question 6**

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**END OF QUESTIONS**



**There are no questions printed on this page**

**DO NOT WRITE ON THIS PAGE  
ANSWER IN THE SPACES PROVIDED**

