MATHEMATICS SPECIFICATION A/B/C   1962/08/2345/2318

OPTION B (OCR-MARKED TASKS)   **1969/05**

INTERMEDIATE/HIGHER TASK B   **I/H TASK B**

TO BE COMPLETED BY 19 APRIL 2005

Additional materials:
    Answer booklet
    Electronic calculator
    Geometrical instruments

INSTRUCTIONS TO CANDIDATES

Write your name, Centre number and candidate number in the spaces provided on the answer booklet and in the spaces on any graph or squared paper.

Write your answers on the answer booklet and any graph or squared paper provided.

If appropriate you may fasten notes and computer printout securely to the answer booklet, graph and squared paper with the answer booklet, graph or squared paper **on top of** any such attached materials.

INFORMATION FOR CANDIDATES

You may use an electronic calculator.

GUIDANCE FOR CANDIDATES

To gain the highest mark possible, you should attempt to include as many of the following features as possible.

Plan the task	• State clearly what your aims are before you work through the task. • Write a plan that allows you to find out as much as possible about the task. • State where you will obtain your data. • If you have to sample data, say how and why you chose the sample, how this might affect your results and what you may have to do to overcome any problems. • Use correct statistical terms at all times.
Explain your work	• Show clearly what you have done with your data. • When you use calculations, show the working you had to do. • If you use ICT, include print-outs and explain clearly what the graphs, tables and any figures calculated tell you about your work. • Use only calculations, graphs or tables that are useful. • Check carefully that you have not made errors.
State your findings	• Try to write your comments near to the calculations, graphs or tables that you have produced. • Write comments that explain what your results tell you about the task. • Say how effective your plan was in helping you find out about the task. • Say what realistic improvements you could have made to improve the method(s) you used.

This question paper consists of 2 printed pages and a supplementary sheet.

OCR-marked Task [AO1]
Suitable for Intermediate and Higher Tiers

Estimate

Brian asked 120 people to estimate the area of the rectangle drawn opposite.

These are the estimates people gave to Brian for the area of the rectangle.

All measurements are in square centimetres.

90.5	140.6	180	151.55	112	129.7
100	134.6	168.3	201.3	146.4	132
189	152.25	126.3	141.3	165	147.4
170	188	136.2	144.8	139	126
41.2	100	129	156.2	146.8	146.9
141	111	134.8	155.5	183	157
157.7	161.5	144	119.1	125	125
130	132.2	147.9	151.6	159	154.2
122	129	139.5	146	132	133.7
146.6	155	146.8	158.9	165.3	119
143	121.25	115	166	183	108.2
155.8	149	148.2	146.3	175.9	157.3
118	170	138	129	148.5	166
169.3	137.1	142.6	134.2	93	167.4
111.3	147.3	160	141.8	177	100
139	177.4	184	140	146.2	131.8
135.5	135.5	145	175	250	122
166.2	138	135.8	160	151	133
95	145.4	190	162.6	140	125
147.8	149.5	164	137.4	121.2	169

The area of the rectangle is 145.36 cm^2.

1 Analyse the estimates that were made for the area of this rectangle.

2 Extend your investigation, making clear the rules and methods that you use.

Detach this sheet.
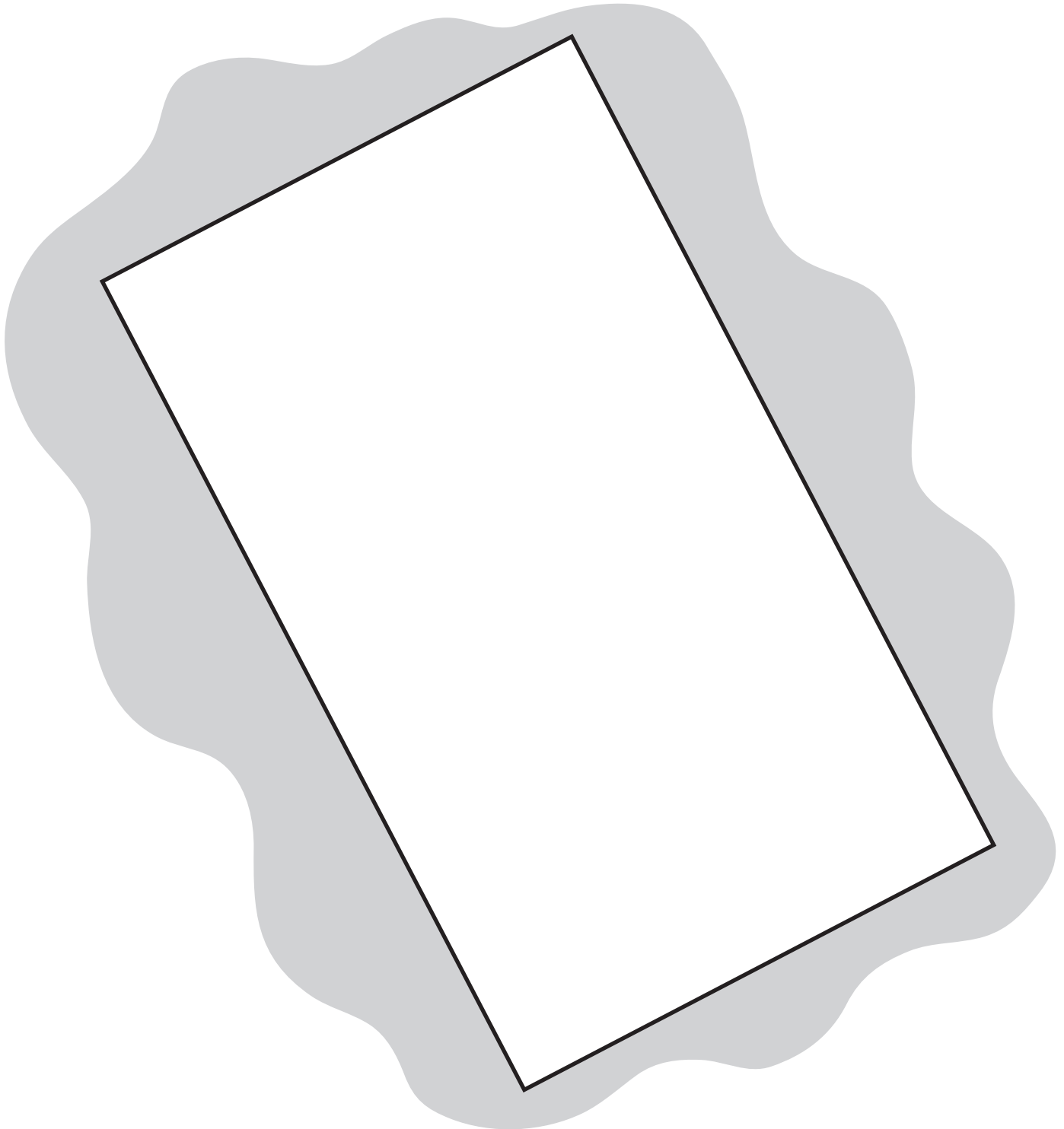*Read the Instructions on the front page of your question paper.*

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SUPPLEMENTARY SHEET

Estimate the area of this rectangle?