



Surname _____

Forename(s) _____

Centre Number _____

Candidate Number _____

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I declare this is my own work.

A-level

**DESIGN AND TECHNOLOGY:
FASHION AND TEXTILES**

Paper 1 Technical Principles

7562/1

Wednesday 7 June 2023

Afternoon

Time allowed: 2 hours 30 minutes

[Turn over]



At the front of this book, write your surname and forename(s), your centre number, your candidate number and add your signature.

MATERIALS

For this paper you must have:

- **normal writing and drawing materials**
- **a scientific calculator.**

INSTRUCTIONS

- **Use black ink or black ball-point pen. Use pencil only for drawing.**
- **Answer ALL questions.**
- **You must answer the questions in the spaces provided. Do not write on blank pages.**



- **If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).**
- **Do all rough work in this book. Cross through any work you do not want to be marked.**

INFORMATION

- **The marks for questions are shown in brackets.**
- **The maximum mark for this paper is 120.**

DO NOT TURN OVER UNTIL TOLD TO DO SO



Answer ALL questions in the spaces provided.

01.1

Describe the STRUCTURE of twill weave fabric. [3 marks]

0	1	.	2
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Describe the STRUCTURE of weft knitted fabric. [3 marks]

[Turn over]

<hr/>
6



0	2
---	---

Explain how smart materials can improve the performance of sportswear.

You should include SPECIFIC EXAMPLES of smart materials in your answer. [6 marks]

[illegible]

[Turn over]



0	3
---	---

Special effect metallic threads can be added to fabrics at different stages of production.

Give TWO DIFFERENT ways metallic threads can be added to fabrics.

[2 marks]

1 _____

2 _____

8



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[Turn over]



0	4
---	---

A retailer has different offers on garments as shown in TABLE 1.

TABLE 1

GARMENT	NORMAL PRICE	SALE OFFER
Budget	£17.99	$\frac{1}{5}$ off
Luxury	£24.50	40% off

Which garment is cheaper in the sale?

You MUST show your working. [3 marks]

Answer _____

<hr/>
3

[Turn over]



0	5
---	---

Describe a range of different garment manufacturing systems that meet the demand for fast changes in fashion.

[9 marks]

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9



0	6
---	---

Name TWO inorganic fibres. [2 marks]

1 _____

2 _____



0	7
---	---

Outline the role of the British Standards Institute (BSI). [3 marks]

[Turn over]

<hr/>
5



0	8
---	---

Explain how the PROPERTIES OF FABRICS can be modified by applying a range of chemical finishes.

In your answer you should refer to specific chemical finishes. [12 marks]

[illegible]



0	9
---	---

Manufacturers need to comply with Health and Safety laws.

Analyse and evaluate how the Health and Safety at Work Act (1974) impacts on the MANUFACTURERS of fashion and textiles products. [9 marks]

[Turn over]



[illegible]

10

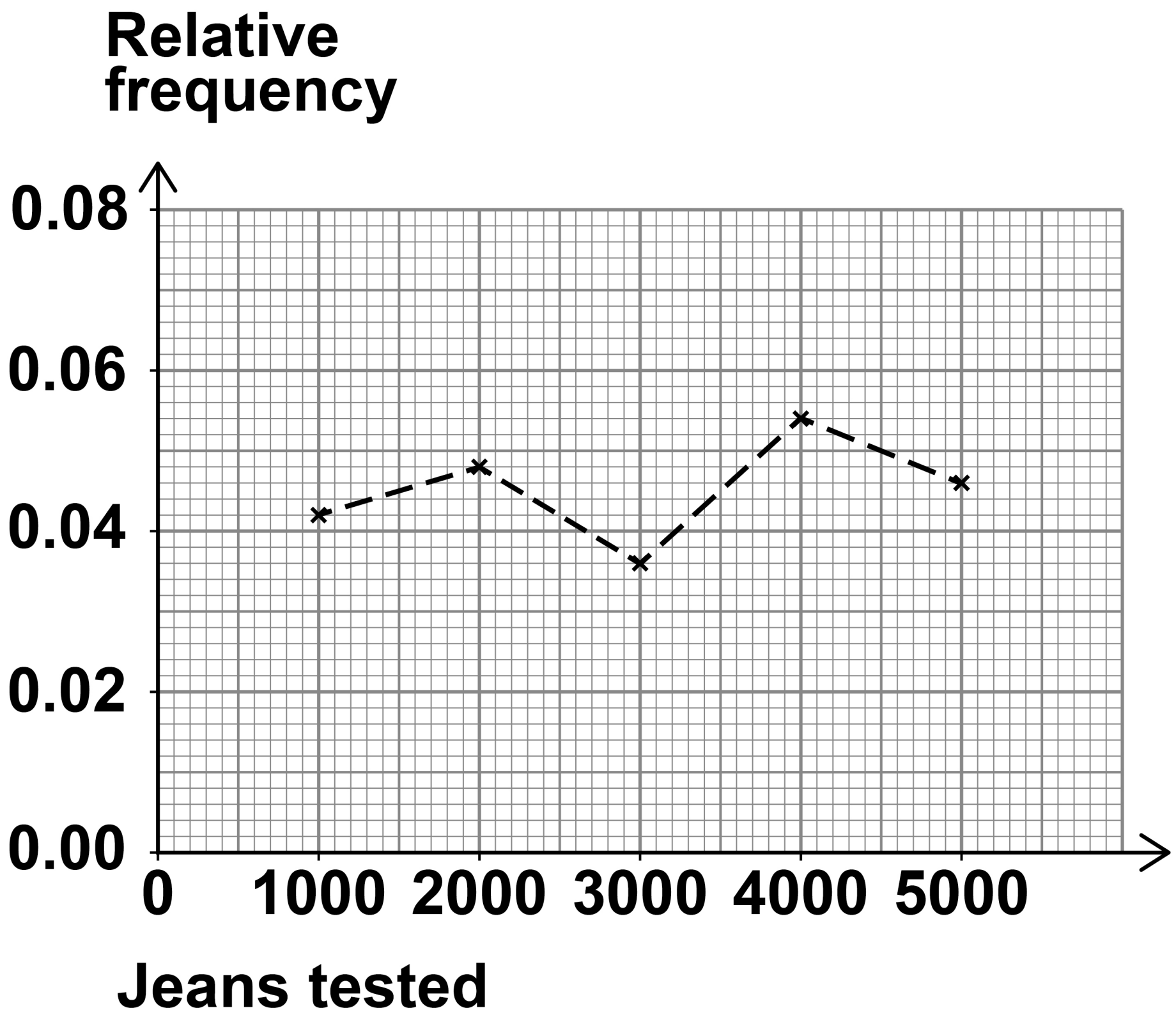
A jeans manufacturer carries out a survey to investigate the probability of producing faulty jeans.

The relative frequency of faulty jeans was calculated and the results are plotted on the graph in FIGURE 1, on page 22.

[Turn over]



FIGURE 1



1	0	.	1
---	---	---	---

How many of the first 3000 jeans tested were faulty?

Show your working. [2 marks]

Answer _____

[Turn over]



1	0	.	2
---	---	---	---

Estimate the probability that one pair of jeans, selected at random, will be faulty.

Show your working.

Give a clear reason for your answer.
[2 marks]

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4



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[Turn over]



1	1
---	---

Compare and contrast the environmental impact of wool, silk and hair fibres with synthetic fibres.

In your answer you should refer to:

- **the sources of raw material**
- **processing**
- **care and maintenance**
- **disposal.**

[12 marks]



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[Turn over]



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[Turn over]



1	2
---	---

Explain the benefits of virtual modelling for use in client presentations. [6 marks]

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[Turn over]

18



1	3
---	---

Give TWO uses for bindings cut on the bias when making textile products.
[2 marks]

1 _____

2 _____



1	4
---	---

Give **THREE** advantages of sub-assembly. [3 marks]

1 _____

2 _____

3 _____

[Turn over]

<hr/>
5

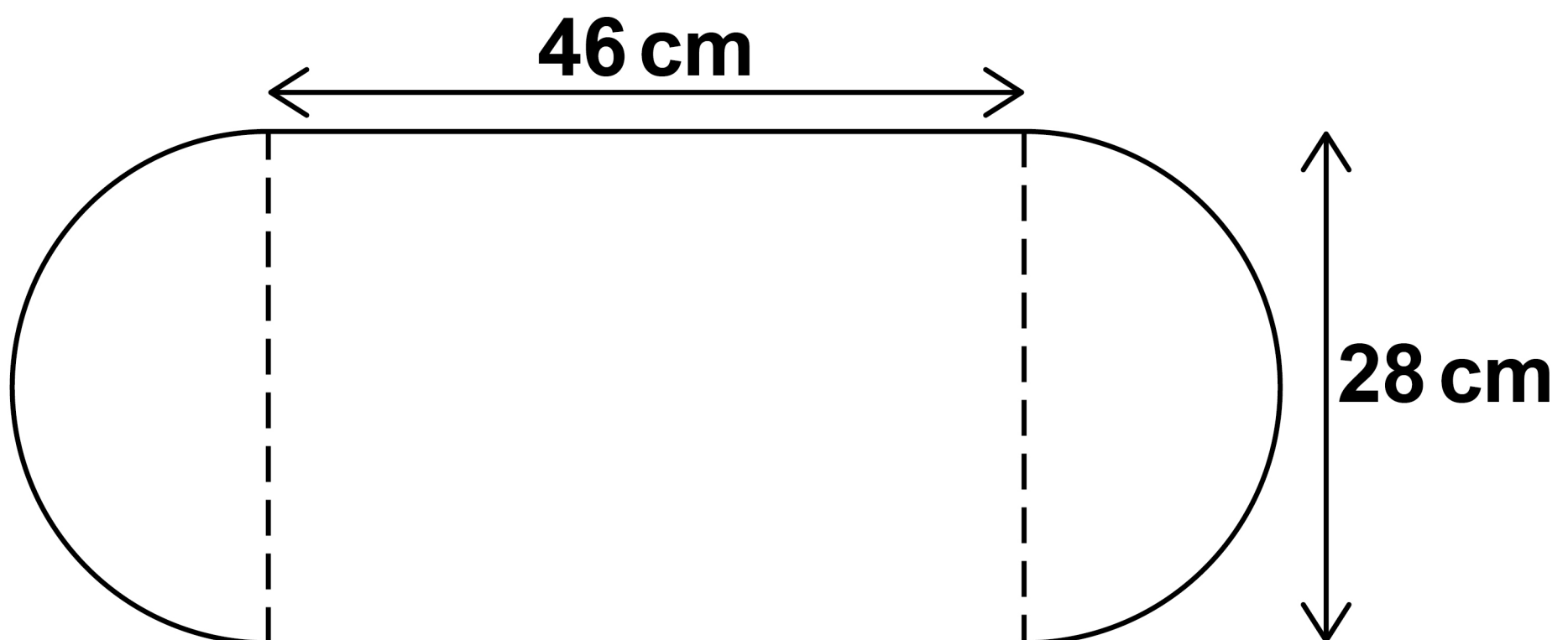


1	5
---	---

FIGURE 2 shows a pattern template for a table mat.

FIGURE 2

The diagram is not drawn to scale



The pattern template is a rectangle with a semi-circle at each end.

Calculate the perimeter of the table mat shape to the nearest cm.

Show your working. [3 marks]

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Answer

[Turn over]

3



1	6
---	---

Outline the QUALITIES required for a fashion collection to be worn in a warm climate.

In your answer you should refer to specific:

- **fibre types**
- **fabric structures**
- **fabric properties.**

[9 marks]



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[Turn over]



9



1	7
---	---

Describe TWO different methods of core-spinning yarns. [4 marks]

Method 1 _____

Method 2 _____

[Turn over]

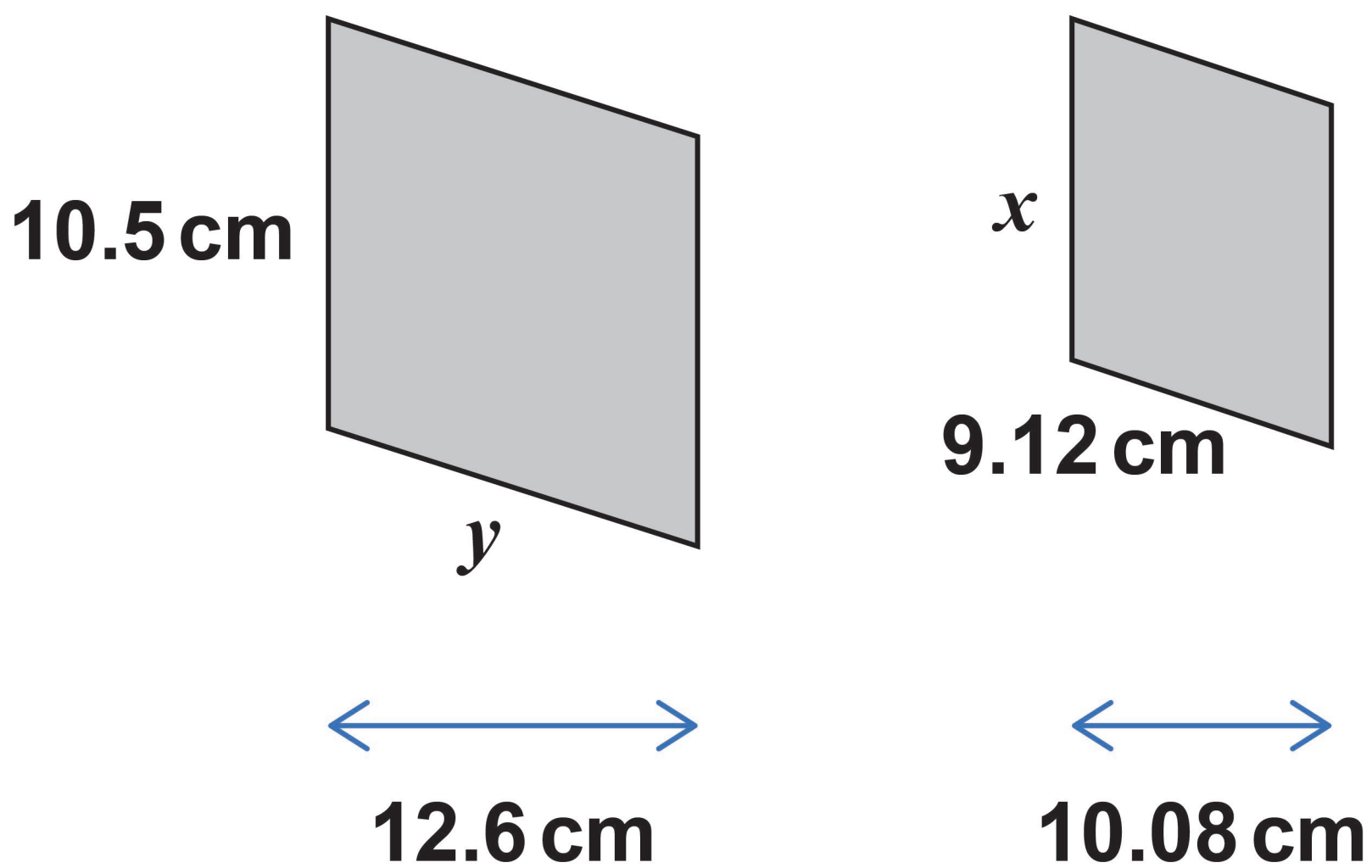
4



1	8
---	---

Pattern templates for two different sizes of similar patchwork pieces are shown in FIGURE 3.

FIGURE 3



Calculate lengths x and y .

Show your working. [3 marks]

$x =$ _____ **cm**

$y =$ _____ **cm**

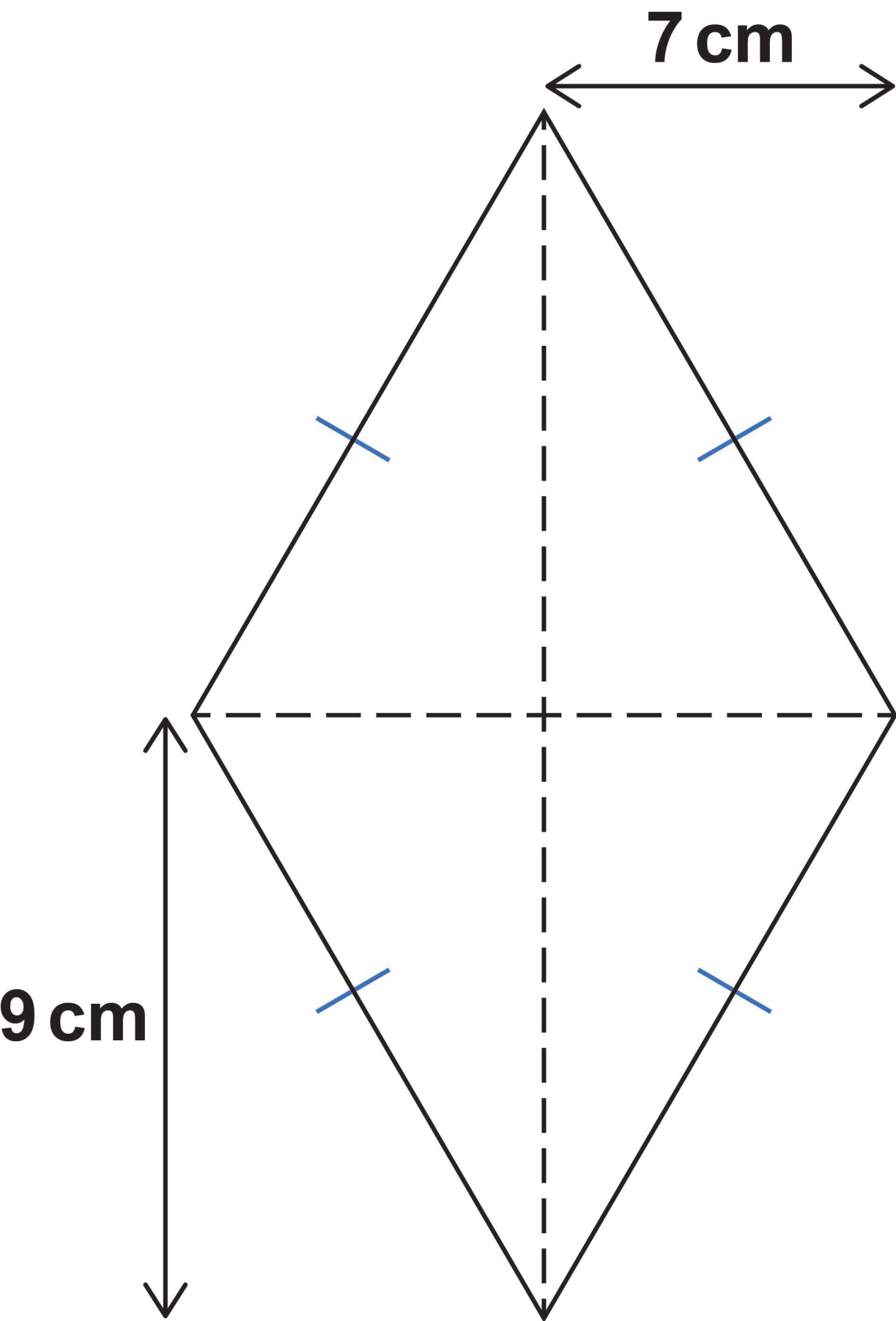
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3



19.1

FIGURE 4



Calculate the area of the diamond-shaped patchwork piece shown in FIGURE 4.

[2 marks]

Answer _____ **cm²**

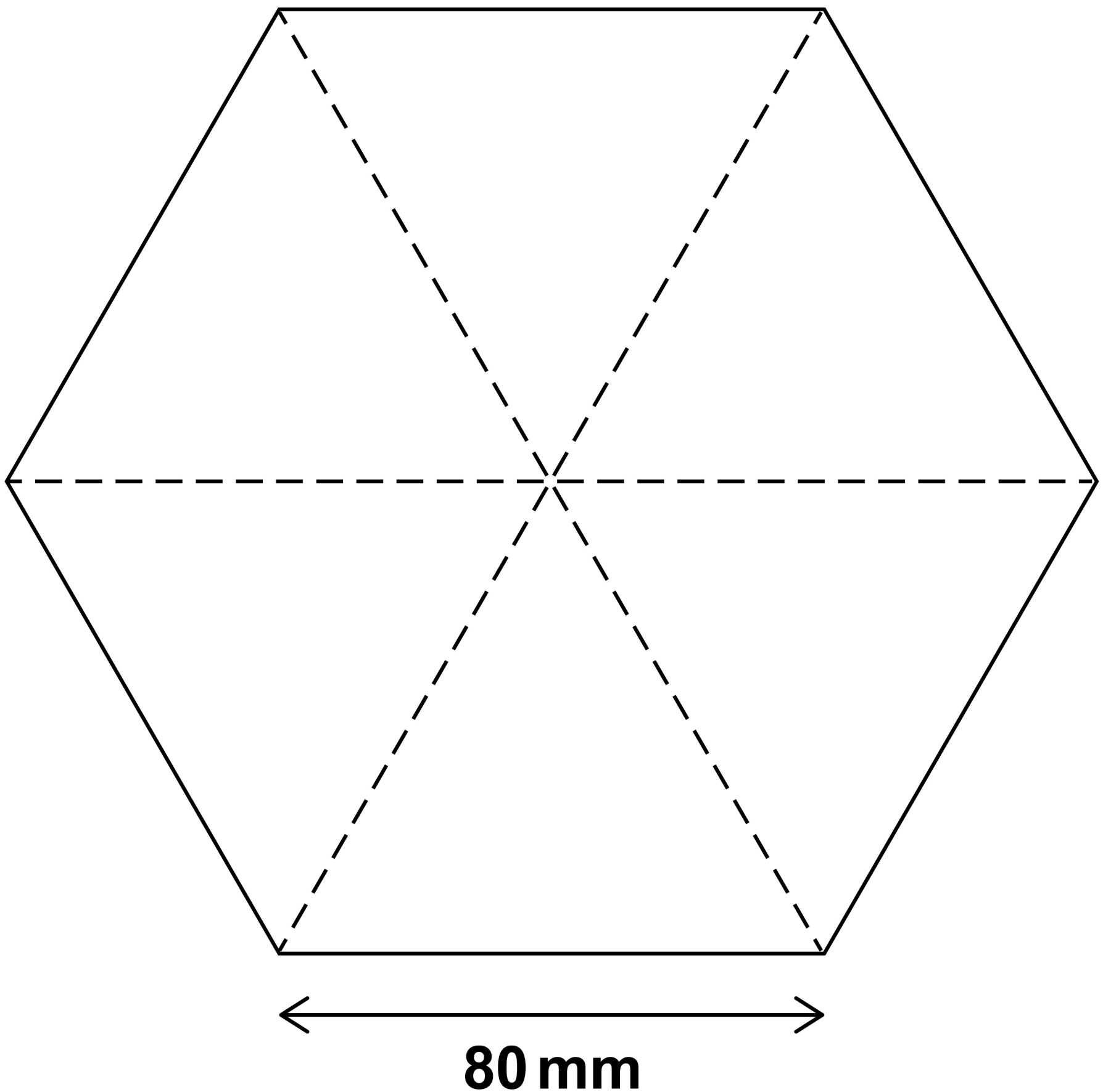
[Turn over]



1	9	.	2
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The hexagon shown in FIGURE 5 is a patchwork piece made up of six identical equilateral triangles.

FIGURE 5



Calculate the area of the hexagon to the NEAREST cm^2 [5 marks]

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Answer _____ **cm²**

[Turn over]



2	0
---	---

Analyse and evaluate the economic AND social impact of offshore production.

In your answer consider the issues for:

- **the manufacturer**
- **the workers.**

[9 marks]



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[Turn over]



9



2	1
---	---

Explain why polar fleece is used for fashion and textiles products.

In your answer refer to the structure of the fabric. [6 marks]

[Turn over]



END OF QUESTIONS

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6



Additional page, if required.
Write the question numbers in the left-hand margin.

This image shows a blank sheet of white paper with horizontal ruling lines. A single vertical line runs down the left side, creating a margin. There are 20 horizontal lines in total, evenly spaced across the page. The lines are thin and black.

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For Examiner's Use	
Question	Mark
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13–14	
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20	
21	
TOTAL	

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