



Oxford Cambridge and RSA

Friday 16 June 2023 – Morning

A Level in Design and Technology: Fashion and Textiles

H405/02 Problem Solving in Fashion and Textiles

Time allowed: 1 hour 45 minutes



You must have:

- the Resource Booklet

You can use:

- a ruler (cm/mm)
- a scientific calculator
- geometrical instruments



Please write clearly in black ink. **Do not write in the barcodes.**

Centre number

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Candidate number

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First name(s)

Last name

INSTRUCTIONS

- Use black ink. You can use an HB pencil, but only for graphs and diagrams.
- Write your answer to each question in the space provided. You can use extra paper if you need to, but you must clearly show your candidate number, the centre number and the question numbers.
- Answer **all** the questions.
- Where appropriate, your answer should be supported with working. Marks might be given for a correct method, even if your answer is wrong.
- Each question tells you which part of the Resource Booklet to refer to.

INFORMATION

- The total mark for this paper is **70**.
- The marks for each question are shown in brackets [].
- Quality of extended response will be assessed in questions marked with an asterisk (*).
- This document has **20** pages.

ADVICE

- Read each question carefully before you start your answer.

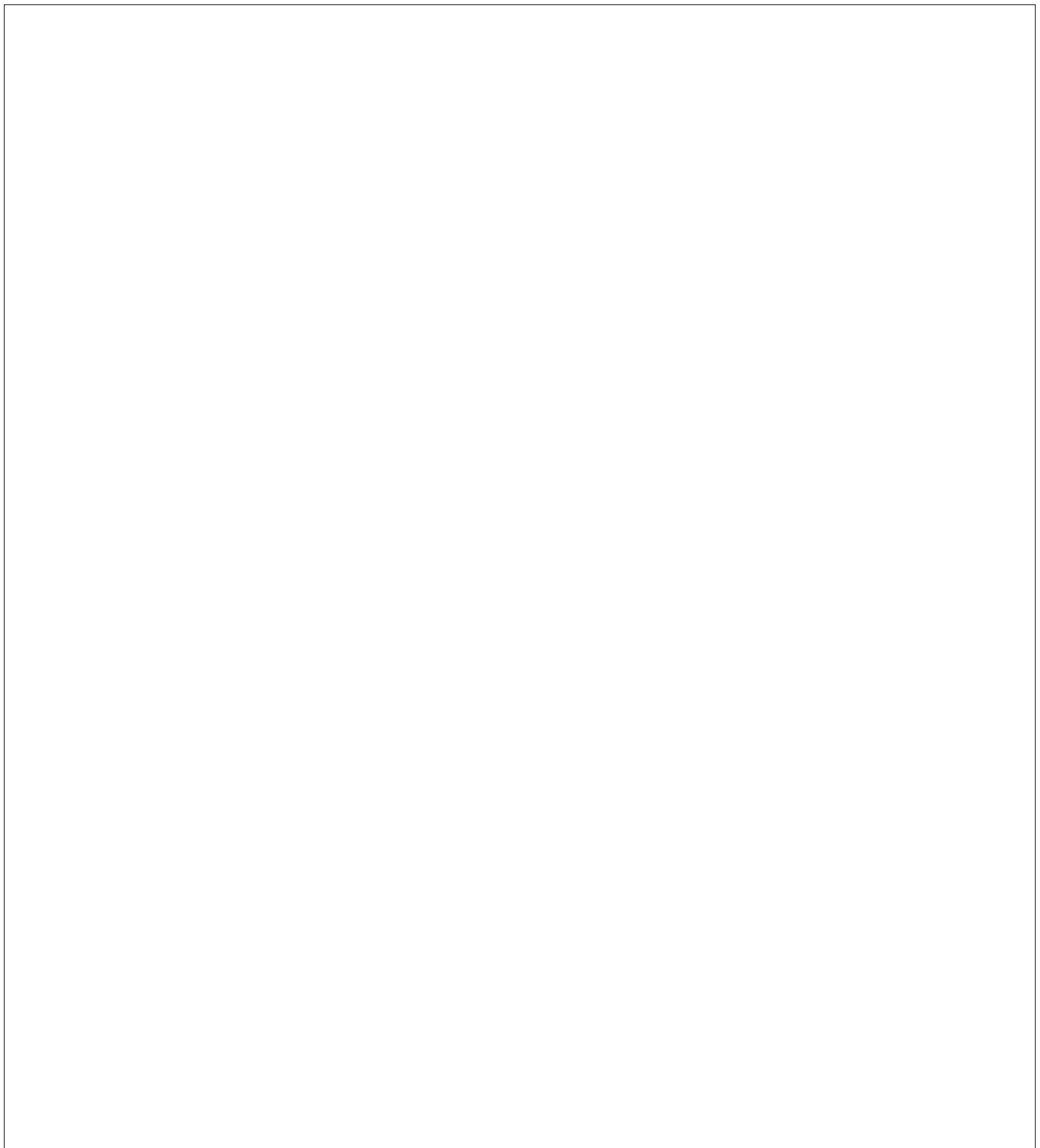
- 3 Simple Boutique is extending its product range as planned. It has developed a design proposal for a fitted dress that could be worn as work wear. To give the fitted dress a smart appearance it needs to include a zip fastening and shoulder pads.

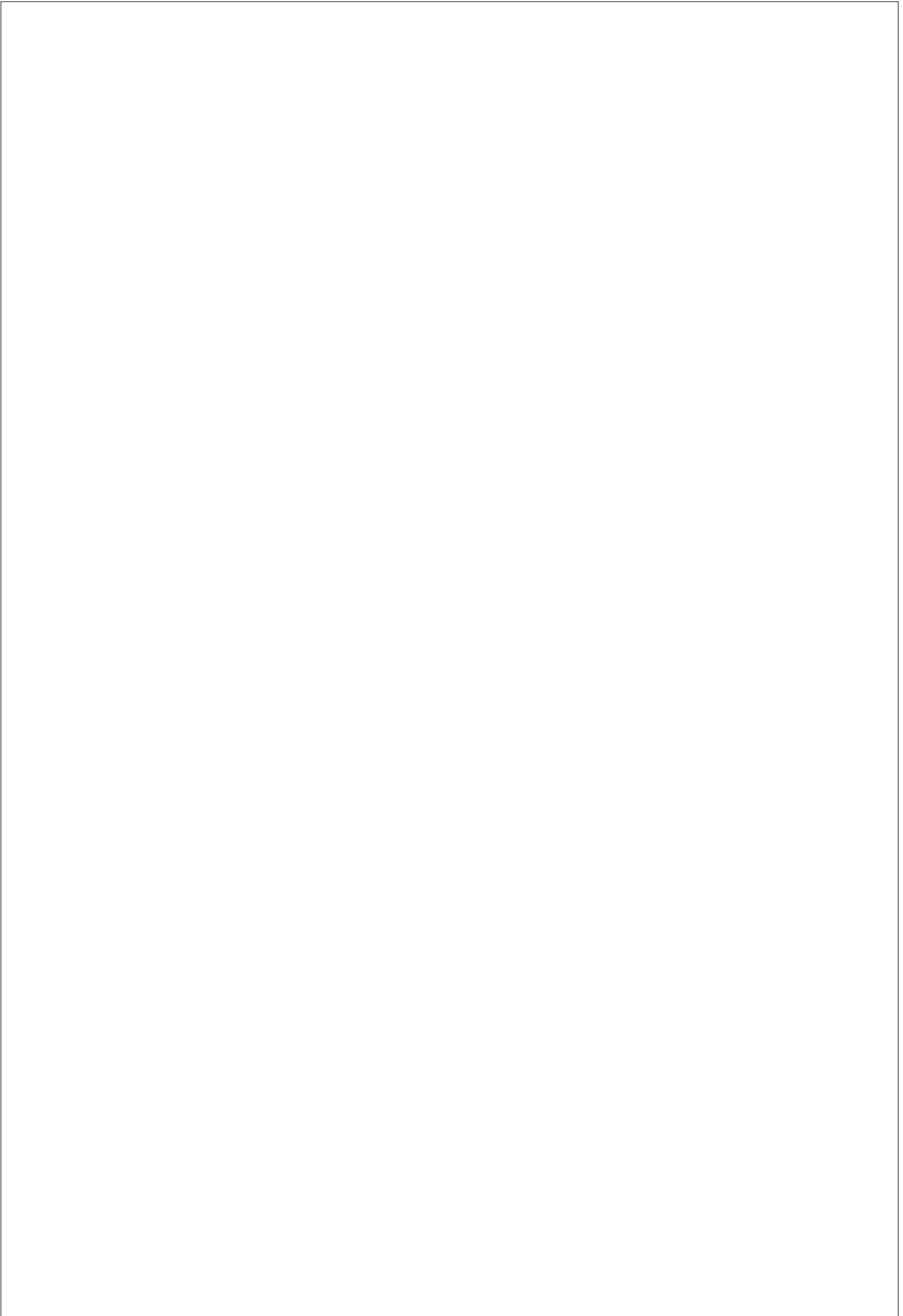
Use sketches and/or notes to show how a zip and shoulder pads could be incorporated within the fitted dress as shown in **Fig. 6** of the Resource Booklet.

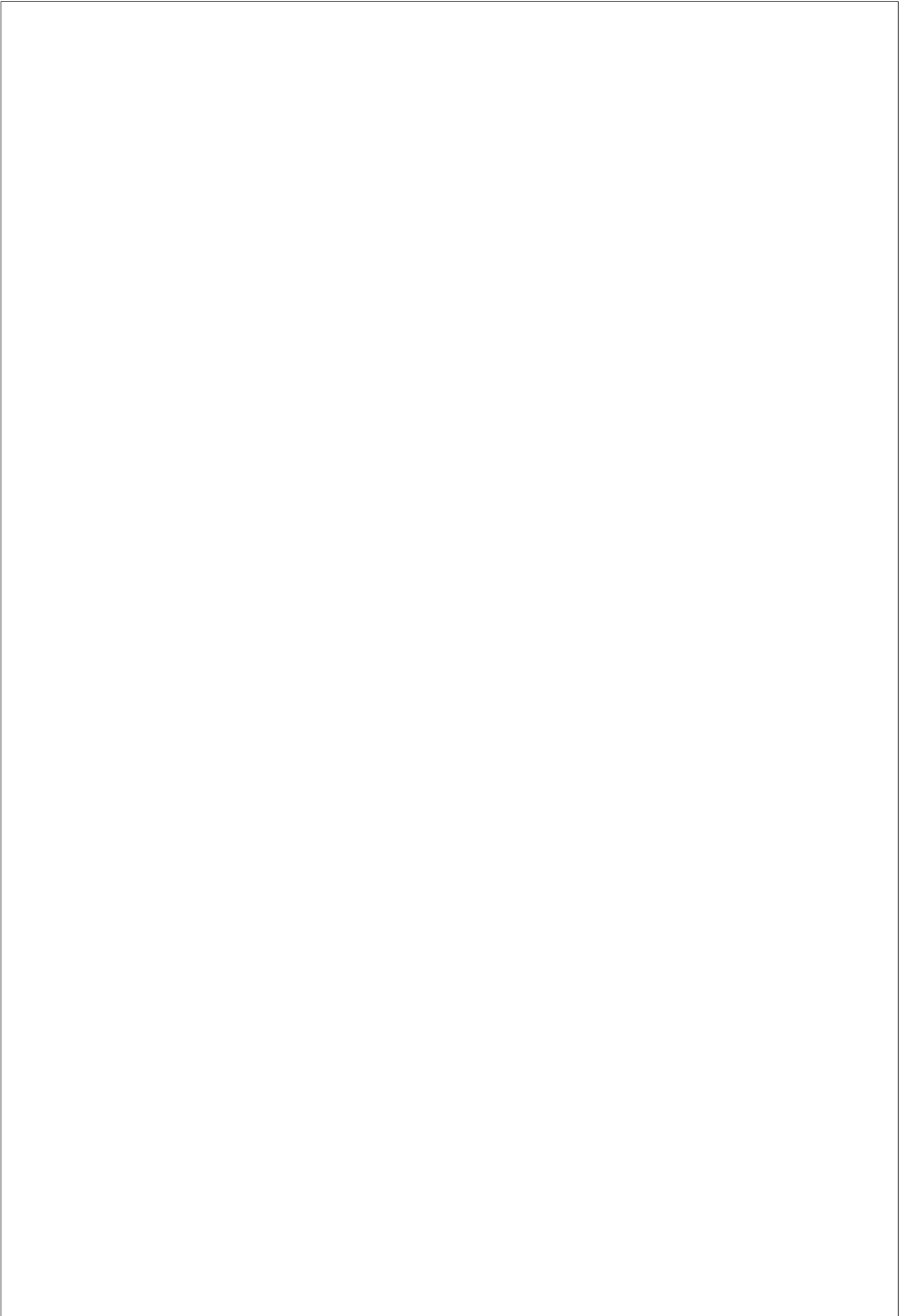
In your answer you **must** consider:

- construction techniques
- tools and equipment
- quality assurance or quality control checks.

[16]







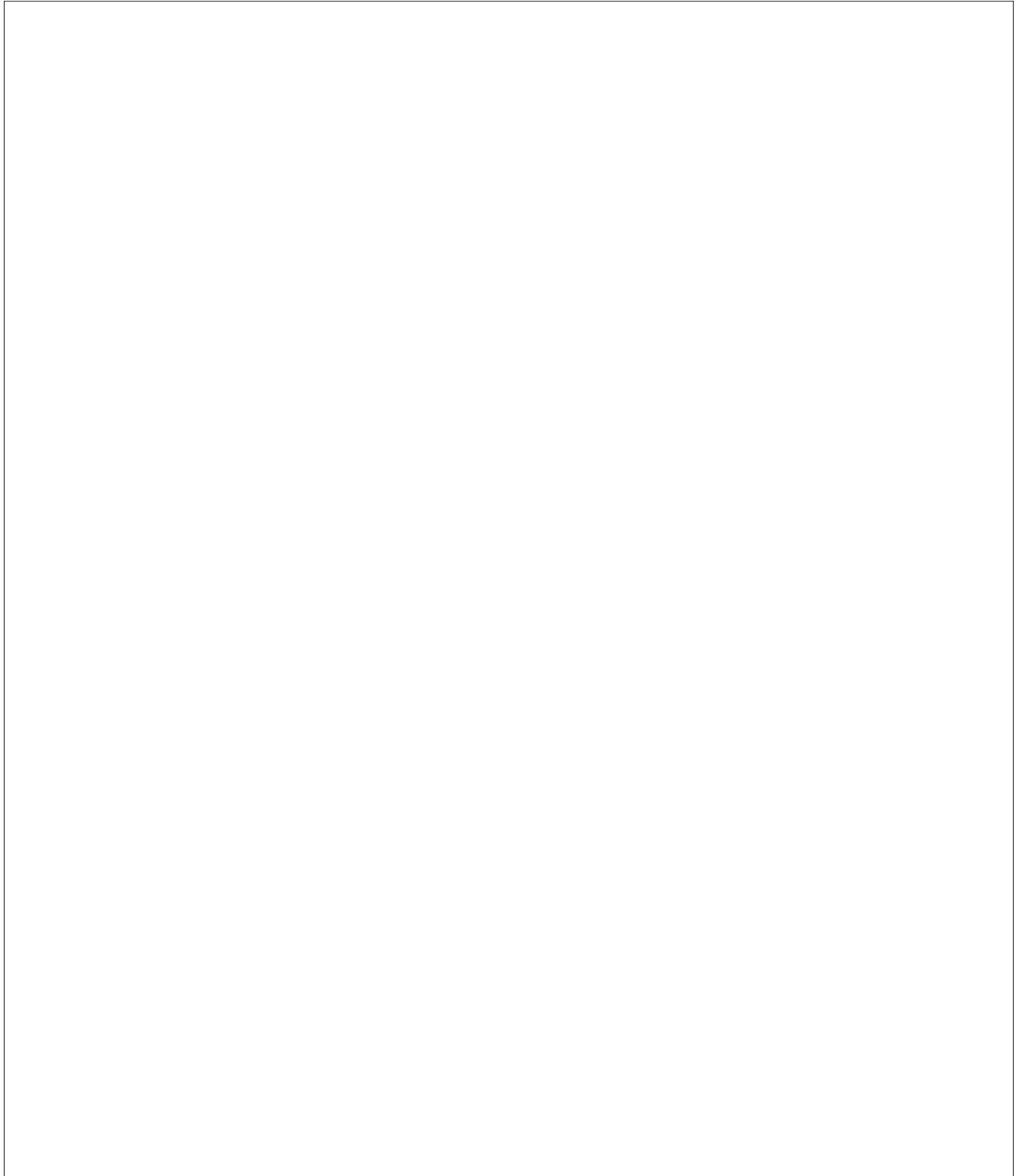
- 4 A decorative embellishment is to be added to the dress as shown in **Fig. 8** of the Resource Booklet.

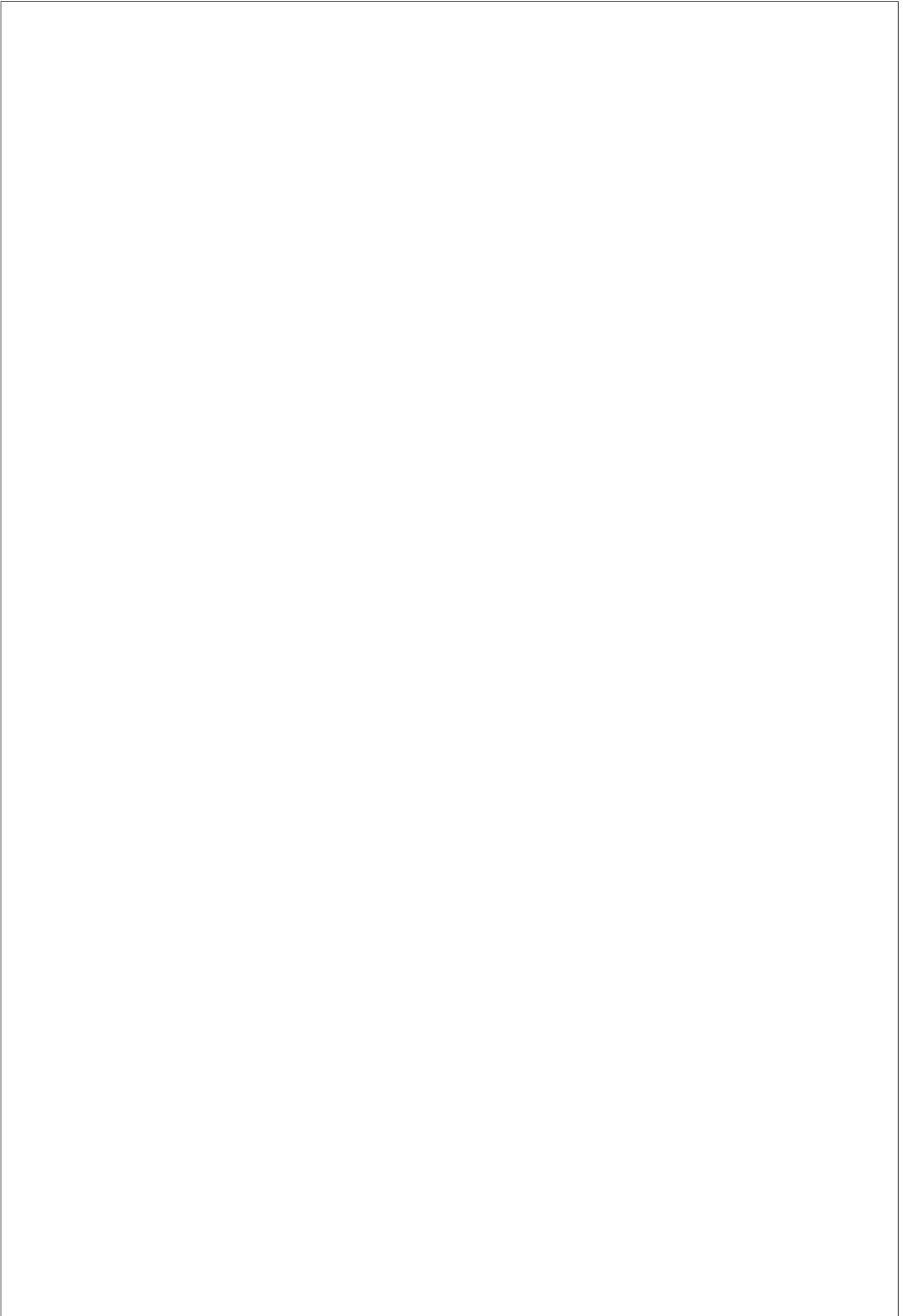
Use sketches and/or notes to show how to apply decorative embellishment to this dress.

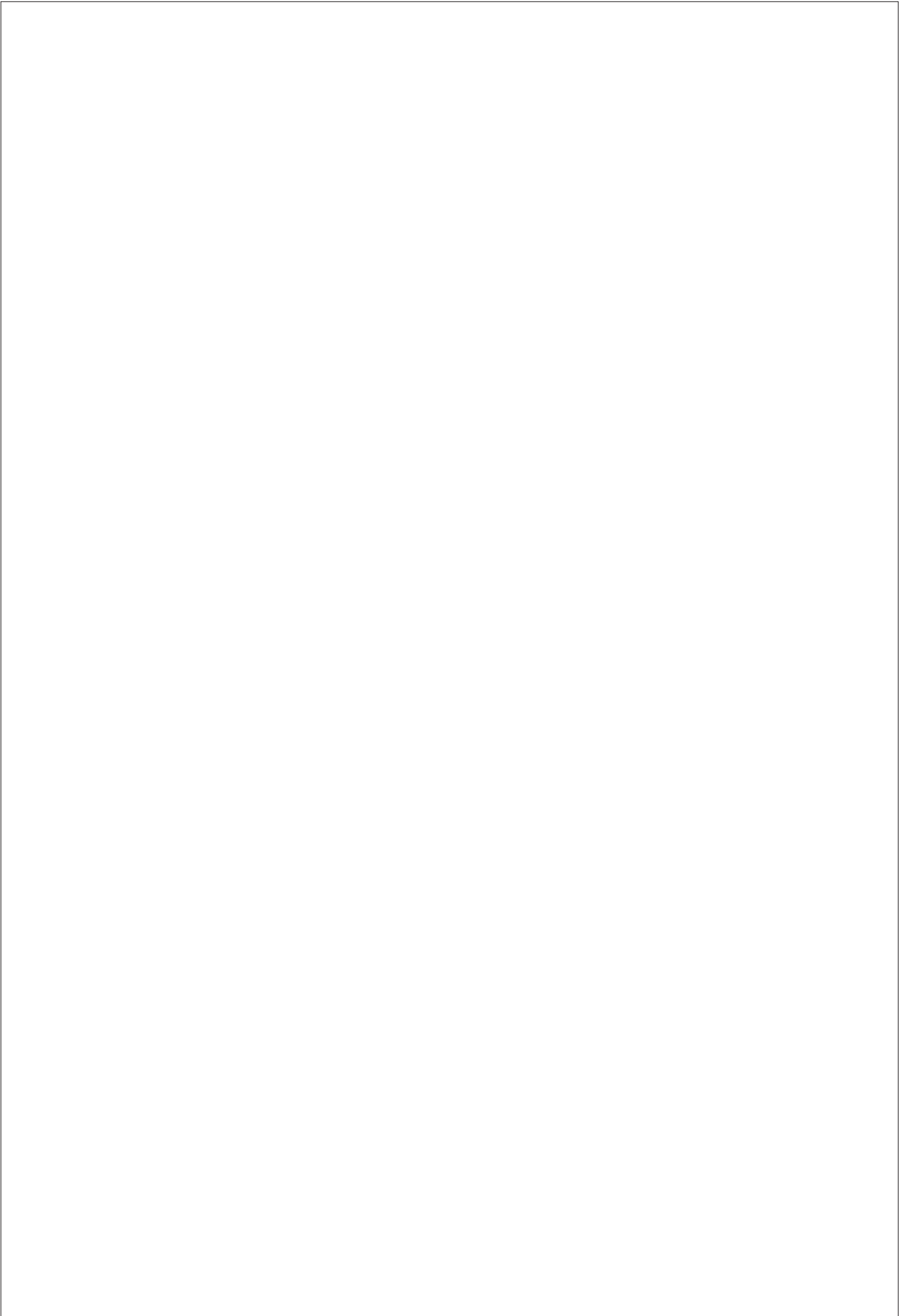
In your answer you **must** consider:

- the selection of components for machinery embroidery and to reinforce fabric
- suitability of the fabric
- health and safety issues for the manufacturer.

[12]







- 5 Sam has produced a simple flower design using two different sized rhombus shapes for the petals and a decagon for the centre as shown in **Fig. 9** of the Resource Booklet.

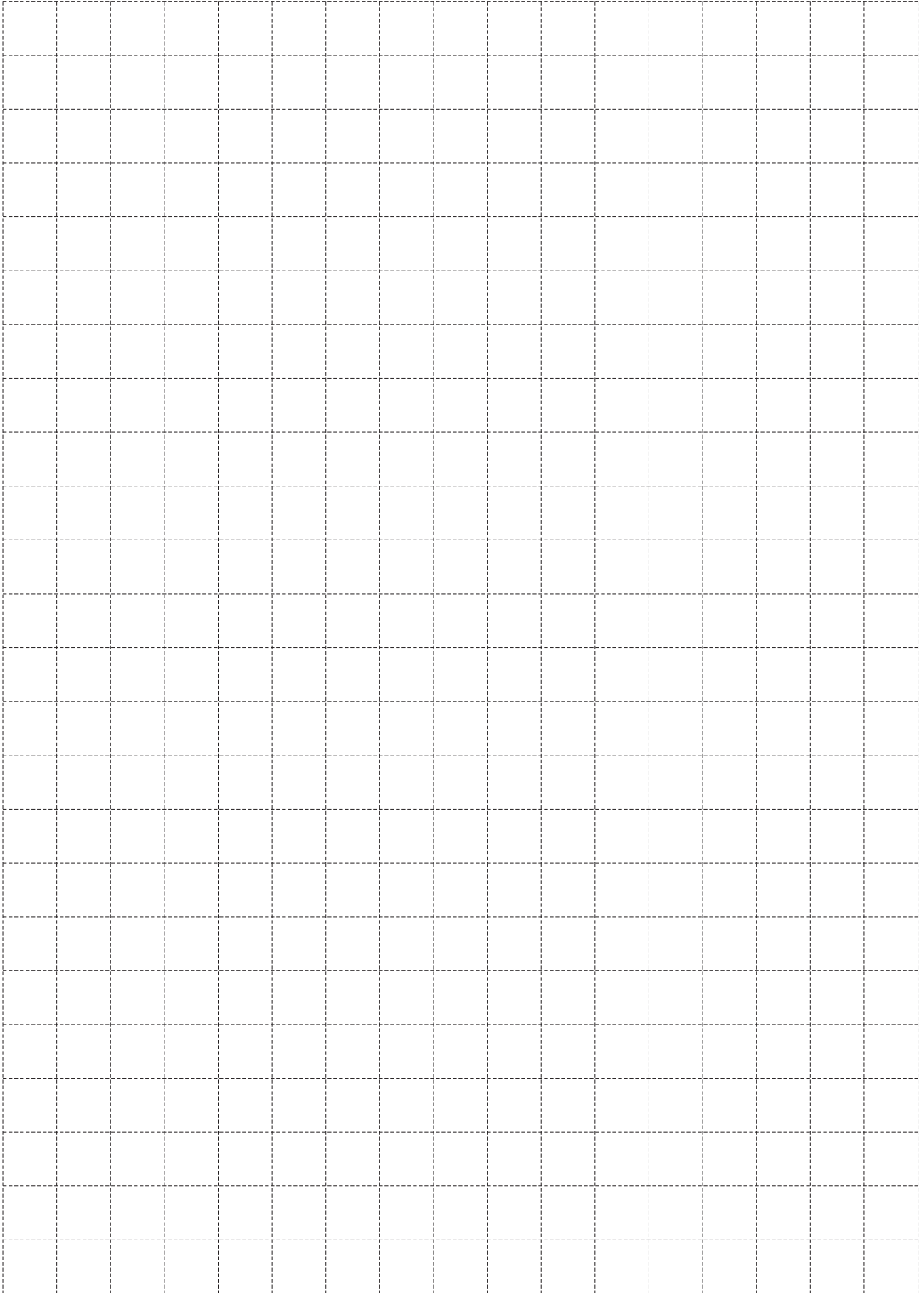
(a) Templates of the petals now need to be generated.

Plot the following coordinates of the two rhombus shapes onto the 1 cm grid paper provided:

Large rhombus – (4, 3) (5, 1) (5, 5) (6, 3)

Small rhombus – (13, 2.5) (14, 1) (14, 4) (15, 2.5)

[2]



- (b) Use the information provided on **page 7** of the Resource Booklet to prove that the area of the decagon is 69.2479 cm^2 correct to **4** decimal places. Show your working. **[4]**



END OF QUESTION PAPER

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