



**Methodist Ladies' College  
ATAR course examination, Semester 2, 2019**

**Question/Answer Booklet**

**MATERIALS  
DESIGN AND  
TECHNOLOGY  
ATAR Year 11  
Sections One, Two and Three**

Student Name: \_\_\_\_\_

Teacher Name: \_\_\_\_\_

**Time recommended for these sections**

Reading/planning time before commencing work: Ten minutes

Working time for these sections: Two hours

**Materials required/recommended for this paper**

***To be provided by the supervisor***

This Question/Answer Booklet

***To be provided by the candidate***

Standard items: pens (blue/black preferred), pencils (including coloured), sharpener, correction fluid/tape, eraser, ruler, highlighters

Special items: non-programmable calculators approved for use in this examination

**Important note to candidates**

No other items may be taken into the examination room. It is **your** responsibility to ensure that you do not have any unauthorised material. If you have any unauthorised material with you, hand it to the supervisor **before** reading any further.

## Structure of this paper

Section	Number of questions available	Number of questions to be answered	Suggested working time (minutes)	Marks available	Percentage of written examination	Your Mark
Section One Short answer	2	2	15	10	10	
Section Two Extended answer	3	3	30	20	20	
Section Three Textile specific content	6	6	75	70	70	
<b>Total</b>					100	

## Instructions to candidates

1. The rules for the conduct of ATAR course examinations are detailed in the *Year 11 Information Handbook 2019*. Sitting this examination implies that you agree to abide by these rules.
2. Write your answers in this Question/Answer Booklet.
3. Answer the questions according to the following instructions.  
Sections One and Two: Answer **all** questions.  
Section Three: Answer all of the questions within your specialised field: Textiles.
4. You must be careful to confine your responses to the specific questions asked and to follow any instructions that are specific to a particular question.
5. Additional working space pages at the end of this Question/Answer booklet are for planning or continuing an answer. If you use these pages, indicate at the original answer, the page number it is planned/continued on and write the question number being planned/continued on the additional working space page.

Section One: Short Answer

10 marks

This section has TWO (2) questions. Answer all questions. Write your answers in the spaces provided.

Spare pages are included at the end of this booklet. They can be used for planning your responses and/or as additional space if required to continue with your answer.

- Planning: If you use the spare pages for planning, indicate this clearly at the top of the page.
- Continuing an answer: If you need to use the space to continue an answer, indicate in the original answer space where the answer is continued, i.e. give the page number. Fill in the number of questions that you are continuing to answer at the top of the page.

Suggested working time: 15 minutes

Question 1.

5 marks

This question is about decorative effects.



cotton carry bag



wooden chest



metal tool box

a) Select an item specific to the context you are studying from the items above and describe an appropriate decorative effect that could be applied to this item:

Name of item: \_\_\_\_\_ (1 mark)

I. Name of decorative effect: \_\_\_\_\_ (1 mark)

II. Description of decorative effect: \_\_\_\_\_ (1 mark)

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Section Two: Extended Answer

20 marks

This section has TWO (2) questions. Answer all questions. Write your answers in the spaces provided.

Spare pages are included at the end of this booklet. They can be used for planning your responses and/or as additional space if required to continue with your answer.

- Planning: If you use the spare pages for planning, indicate this clearly at the top of the page.
- Continuing an answer: If you need to use the space to continue an answer, indicate in the original answer space where the answer is continued, i.e. give the page number. Fill in the number of questions that you are continuing to answer at the top of the page.

Suggested working time: 30 minutes

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Question 3.

8 marks

This question relates to the Alessi Bird Whistle Stovetop Kettle illustrated below. This kettle is made in Italy from the best quality mirror polished stainless steel.



Explain how **FOUR (4) of the following design fundamentals** have been used in the design of the Alessi Bird Whistle Stovetop Kettle.

- Aesthetics
- Functional
- Social
- Economic
- Environmental
- Safety

a) Design Fundamental: \_\_\_\_\_

(2 marks)

Explain how this fundamental has been used in the design of the Alessi Bird Kettle:

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Section Three: Textiles Specific Context

70 marks

This section has **SIX (6)** questions. Answer **all** questions. Write your answers in the spaces provided. Spare pages are included at the end of this booklet. They can be used for planning your responses and/or as additional space if required to continue and answer.

- Planning: If you use the spare pages for planning, indicate this clearly at the top of the page.
- Continuing an answer: If you need to use the space to continue an answer, indicate in the original answer space where the answer is continued, i.e. give the page number. Fill in the number of questions that you are continuing to answer at the top of the page.

Suggested working time: 75 minutes

Question 5

6 marks

This question is about **the value of textiles in society**. Using the collage of images shown below, identify **THREE (3) factors that contribute to textile value in society** today. Using at least **ONE (1) example**, describe in detail how each factor contributes to textile value.



Question 5 continued

(a) Factor 1: \_\_\_\_\_ (2 marks)

Describe how this factor contributes to textile value in society.

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(b) Factor 2: \_\_\_\_\_ (2 marks)

Describe how this factor contributes to textile value in society.

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(c) Factor 3: \_\_\_\_\_ (2 marks)

Describe how this factor contributes to textile value in society

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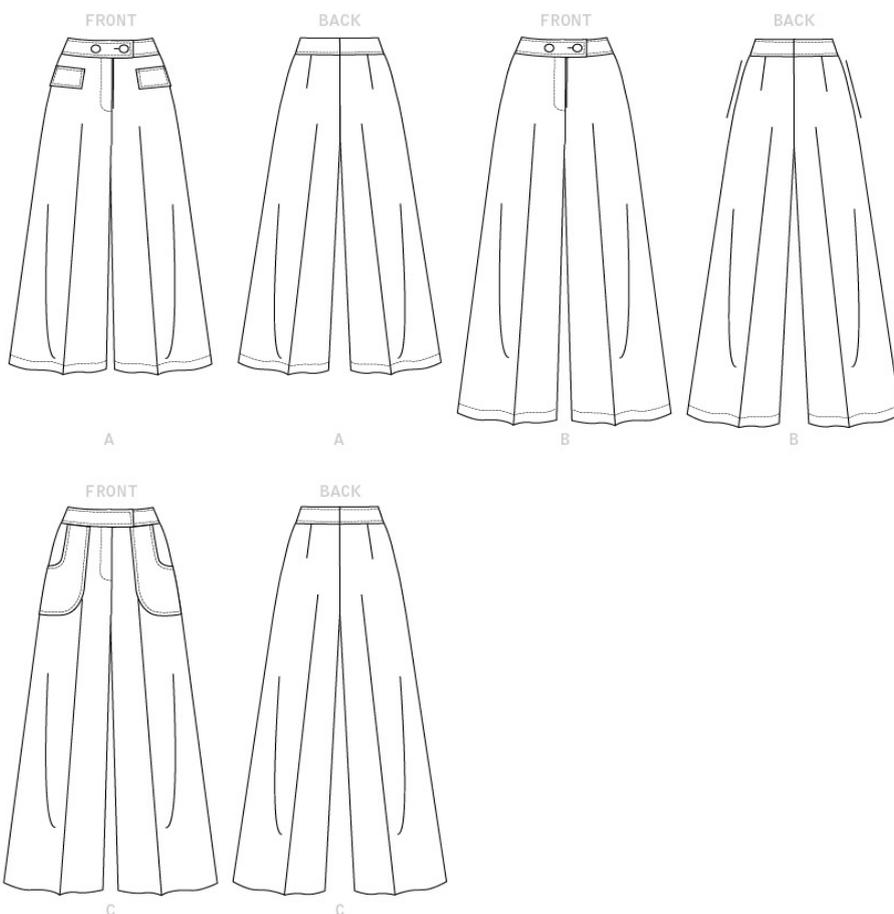
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Question 6.

24 marks

Refer to VOGUE pants pattern V9361 **View A** below for all parts of Question 6.



See next page

Question 6 continued.

**FABRICS:** Unsuitable for obvious diagonals.

\*With Nap. \*\*Without Nap. Gabardine, Crepe, Denim.

**Note:** Fabric requirement allows for nap, one-way design or shading. Extra fabric may be needed to match design or for shrinkage.

**NOTIONS: A, B:** Three 1" (2.5 cm) Buttons. **C:** Three Pairs of Hook & Eyes.

Size Combinations: **A5(6-8-10-12-14) E5(14-16-18-20-22)**

Fabric widths given in centimetres.										
<b>SIZES</b>	<b>6</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	
<b>View A</b>										
115 cm <sup>*/**</sup>	2.1	2.1	2.1	2.4	2.4	2.4	2.4	2.4	2.4	m
152 cm <sup>*/**</sup>	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	m
<b>FUSIBLE INTERFACING A - 46, 51 cm - 0.8 m</b>										
<b>LINING A - 115 cm - 0.3 m</b>										
<b>View B</b>										
115 cm <sup>*/**</sup>	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.7	m
152 cm <sup>*/**</sup>	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	m
<b>FUSIBLE INTERFACING B - 46, 51 cm - 0.7 m</b>										
<b>LINING B - 115 cm - 0.5 m</b>										
<b>View C</b>										
115 cm <sup>*/**</sup>	2.6	2.6	2.6	2.6	2.9	2.9	2.9	2.9	2.9	m
152 cm <sup>*/**</sup>	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	m
<b>FUSIBLE INTERFACING C - 46, 51 cm - 0.8 m</b>										

(a) Using textiles specific terminology, describe the **styling** used in this pant design.

(2 marks)

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Question 6 continued

- (b) What is the name given to the **shaping** technique used to shape the culotte pant to fit the waistline? (1 mark)

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- (c) The culotte pant requires a **closure**. Recommend a **closure** that would be suitable and suggest the most appropriate location for the closure. Justify your answer. (2 marks)

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- (d) Suggest the most appropriate type of **joining and finishing** techniques to use when producing the culotte pant. Justify your answer. (3 marks)

Name of **joining** technique: \_\_\_\_\_

Name of **finishing** technique: \_\_\_\_\_

**Justification of techniques:**

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Question 6 continued

- (e) Name and describe the process by which **the bulk** created at the join between the waistband and the culotte pant can be reduced. (2 marks)

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- (f) How much fabric would you need to purchase to make View A, size 14 culotte pants? (2 marks)

Fabric width is 150cms wide: \_\_\_\_\_

What is an ideal fabric to make these culotte pants? \_\_\_\_\_

- (g) How much lining fabric would you need to purchase to make View A, size 14 culotte pants? (2 marks)

Lining fabric width is 115cms wide: \_\_\_\_\_

What is an ideal fabric to line these culotte pants? \_\_\_\_\_

- (h) Fusible interfacing is required for the culotte pants. (3 marks)

How much interfacing would you need to purchase?

Interfacing fabric width is 115cms wide: \_\_\_\_\_

Where will the interfacing be used? \_\_\_\_\_

What is an ideal interfacing fabric for this purpose? \_\_\_\_\_

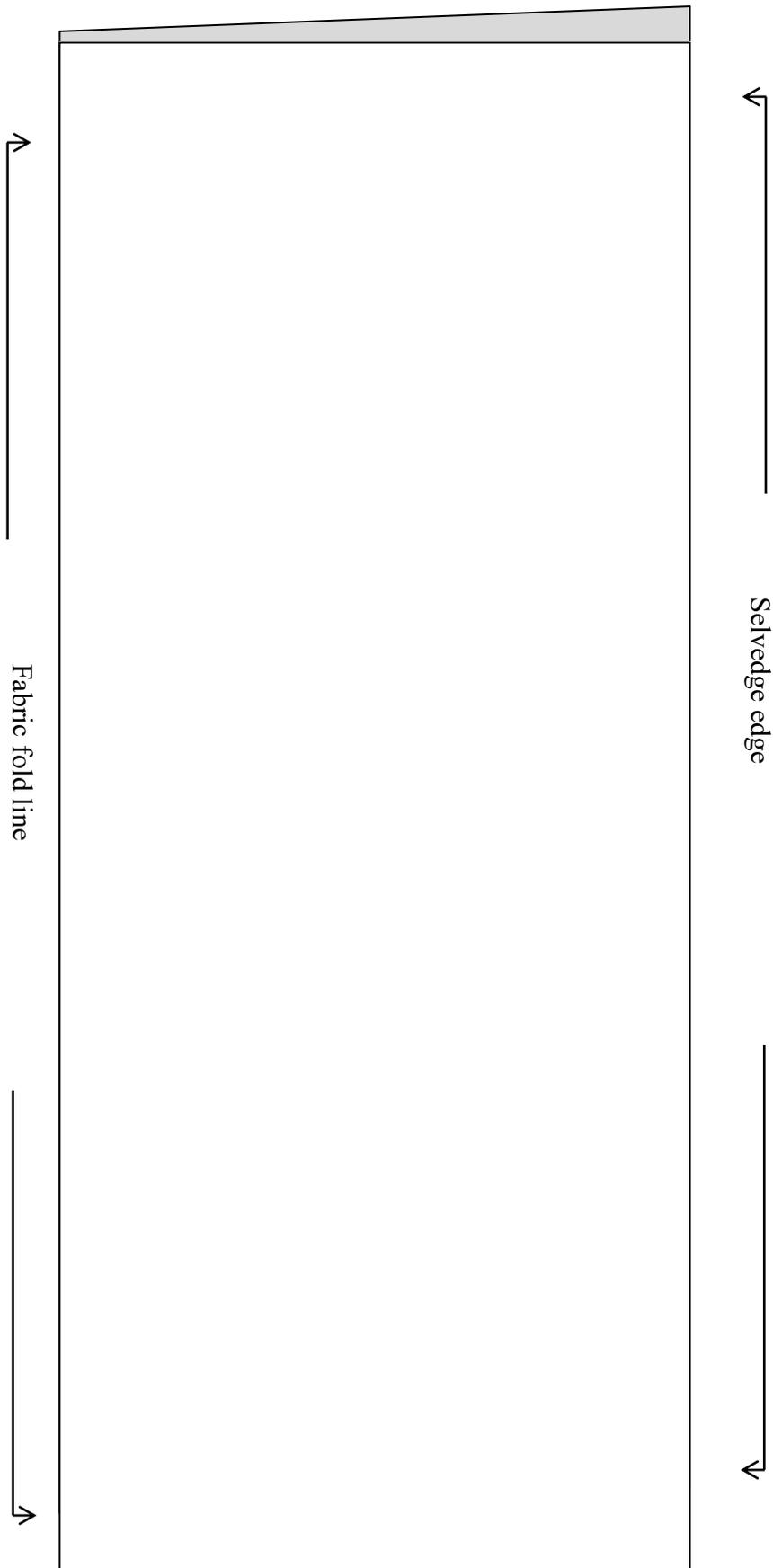
- (i) What notions are required to finish the culotte pants? (1 mark)

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Question 6 continued

(j) Using the culotte pattern pieces as a reference on page 26, arrange the pieces economically and correctly on the fabric layout below.

(6 marks)



See next page

**Question 7**

**10 marks**

Amanda requires **two lined straight legged trousers** to wear to her new job as a lawyer. She has decided to make them herself and has a budget of \$125 to make both pair of trousers.

The requirements for each trouser are as follows:

- 2.2 metres of fabric
- 2 metres of lining
- 20cm of interfacing
- 1 reel of thread
- 1 zip

Choose the most suitable trouser fabric for Amanda to use from the information about fabrics in the table below.

<b>Information About Fabrics</b>			
	<b>Fabric/fibre type</b>	<b>Cost per metre / unit</b>	<b>Care instructions</b>
<b>A</b>	Cotton Polyester Gabardine Suiting 150cms wide	\$18	<ul style="list-style-type: none"> <li>• Machine washable</li> <li>• Line or tumble dry</li> <li>• Moderate iron</li> <li>• Do not bleach</li> <li>• Dry cleanable</li> </ul>
<b>B</b>	Polyester, Viscose and Elastane Suiting 150cms wide	\$20	<ul style="list-style-type: none"> <li>• Machine hand-wash in a laundry bag in cool water</li> <li>• Do not tumble dry</li> <li>• Cool iron</li> <li>• Do not bleach</li> <li>• Dry cleanable</li> </ul>
<b>C</b>	Cotton Drill 115cms wide	\$10	<ul style="list-style-type: none"> <li>• Machine washable</li> <li>• Hot iron</li> <li>• Wash in cold water</li> <li>• Line or tumble dry</li> <li>• Do not bleach</li> <li>• Do not wash with whites</li> </ul>
<b>D</b>	Bemsilk Lining 115 cms wide	\$5	<ul style="list-style-type: none"> <li>• Machine washable</li> <li>• Line or tumble dry</li> <li>• Do not bleach</li> <li>• Moderate iron</li> <li>• Dry cleanable</li> </ul>
<b>E</b>	Interfacing 115 cms wide	\$5	<ul style="list-style-type: none"> <li>• Machine washable</li> <li>• Wash in warm water</li> <li>• dry cleanable</li> <li>• Line or tumble dry on low</li> <li>• Medium iron</li> </ul>
<b>F</b>	Zips	\$2 each	<ul style="list-style-type: none"> <li>• Washable</li> <li>• Colour fast</li> </ul>
<b>G</b>	Thread	\$4.20 each	<ul style="list-style-type: none"> <li>• Washable</li> <li>• Colour fast</li> </ul>

Question 7 continued

**Trouser fabric chosen:** \_\_\_\_\_

(a) **JUSTIFY** your choice of fabric – Explain **FOUR (4) reasons** for your choice of fabric. (4 marks)

I. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

II. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

III. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

IV. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

(a) Calculate the total cost of making **both trousers** in the spaces provided below. (6 marks)

	<b>Cost per metre / unit</b>	<b>Number of metres / units</b>	<b>Cost</b>
<b>Fabric</b>			
<b>Lining</b>			
<b>Interfacing</b>			
<b>Thread</b>	\$4.20	2 reels	
<b>Zip</b>			
<b>Total cost</b>			

**Question 8.**

Blends, composites and alloys are created when different materials are combined.

**10 marks**

a) Explain why **materials are created in this way.**

**(2 marks)**

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b) Identify **TWO (2) different ways in which blends are made in the Textiles industry.**  
Use text and diagrams to explain how the blend type is created.

**(3 marks)**

Blend Type1: \_\_\_\_\_

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Question 8 continued

Blend Type 2: \_\_\_\_\_

(3 marks)

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c) Identify **TWO (2) successful fibre blends** that are commonly used in Textiles. (2 marks)

I. Fibre Blend 1: \_\_\_\_\_

II. Fibre Blend 2: \_\_\_\_\_

**Question 9**

**10 marks**

Consider the **environmental impact throughout the product life cycle of the men's Denim jeans** shown below. The main material used in the garment is a **100% Cotton**.

In your answer you should consider the following:

- Growth of the Cotton fibre
- Manufacture of the Cotton denim fabric
- Strategies for minimising waste during manufacturing and at the end of life of the garment
- Use of water and energy
- Pollution and waste management



**See next page**

Question 9 continued

(i) Growth of the Cotton fibre

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(ii) Manufacture of the Cotton Denim fabric

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(iii) Strategies for minimising waste during manufacturing and at the end of life of the garment

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Question 9 continued

(iv) Use of water and energy

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(v) Pollution and waste management

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**Question 10**

**10 marks**

**Analyse the image of the winter school skirt shown below.**

The school skirt is made from a Gabardine fabric. The Gabardine fabric is made from a fibre blend - the fibre composition of the Gabardine fabric is 70% Wool / 20% Nylon / 10% Lycra



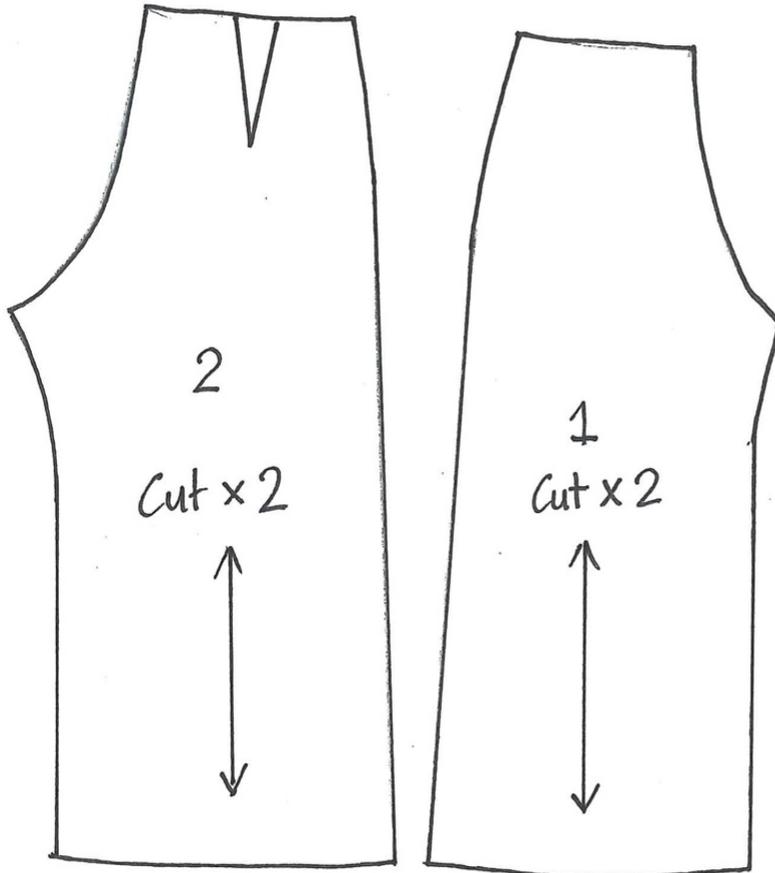
**See next page**







### Pattern templates for Question 6.



- View A Culotte**
- 1 Front pant - cut x 2
  - 2 Back pant- cut x 2
  - 3 Back waistband – cut x 2 on fold
  - 4 Right front waistband - cut x 2
  - 5 Left front waistband - cut x2
  - 6 Pocket flap – cut x 4

3 Cut 2 on fold

Cut x 2 4 ↓

Cut x 2 5 ↓

Cut x 4 6 ↓