

Complete in BLOCK CAPITALS:

FULL NAME _____

APPLICANT ID _____

SCHOOL _____

Read the following carefully:

- The test will last for 90 minutes. We recommend you spend:
 - 30 minutes on the multiple choice section: section A;
 - 60 minutes on the written problems: section B.
- You will be notified when 30 minutes has elapsed.
- **Section A** is multiple choice. Rough working is allowed on the question paper.
- Indicate your answers to section A on the separate multiple-choice sheet, **using the HB pencil provided**. Mark at most one of the options, a, b, c, d, or e. Do not mark more than one option.
- **Scoring rules:** 1 mark for each question left unanswered; 5 marks for each correct answer; 0 marks for each incorrect answer (to discourage guessing).
- Your multiple choice answer sheet will be read by a machine. Do not write or doodle on the sheet except to mark your chosen options. The machine will read all black pencil markings even if they are in the wrong places. If you mark the sheet in the wrong place, doodle, or leave bits of eraser stuck to the page, the machine will interpret the mark in its own way, or reject the answer sheet.
- For **Section B** you should write your solutions **including all your working** in the space provided after each question.
- There are **4 spare blank pages** at the end of the paper in case you need additional space for any question. You may not ask for more paper.
- Make your working as clear as possible.
- Work through the questions in the order they appear on the paper.
- Unlike in other exams, you will not see how many marks are available for each question.
- Do as many questions as you can, but don't worry if you don't have time to finish them all.
- At first sight, these questions may not look familiar. You are expected to use what you know to work out how to answer them.
- If you are stuck on any part of a question, we recommend that you **move onto the next question** and come back later if you have time.
- You may use a pen or a pencil, and you may use a ruler. If you are using a pen, make sure you are writing in dark ink that is clearly visible.
- Calculators, protractors and other equipment are not permitted.
- Be aware that any diagrams provided in the questions are not to scale.

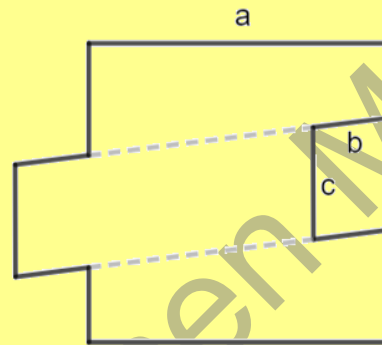
Only section A specimen multiple-choice questions are included in this question set

Section A

Q1

This shape was made from a square (a cm x a cm) by sliding a parallelogram-shaped section out. What is the perimeter of the new shape?

- a) Need more information
- b) $4a+2c$
- c) $4a$
- d) $4a+2b$
- e) $4a+4b$

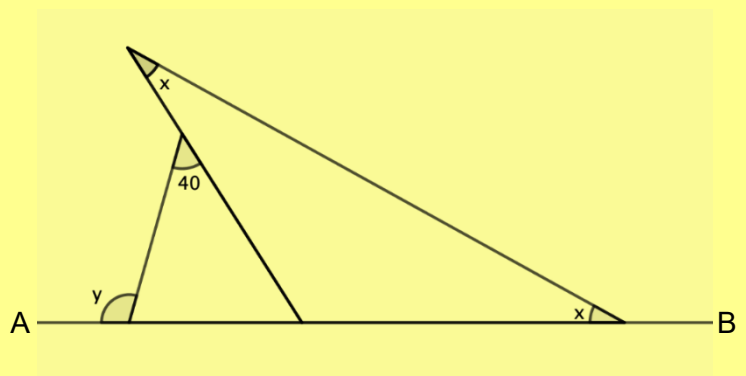


Q2.

In this diagram AB is a straight line.

What is angle y° ?

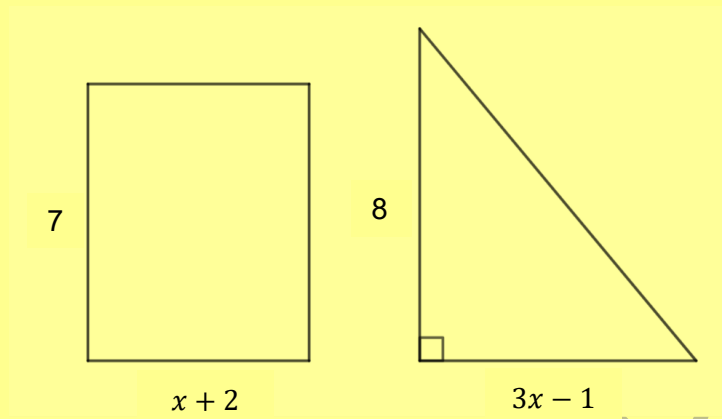
- a) $y = 140^\circ$
- b) $y = 180^\circ - 2x^\circ$
- c) $y = 140^\circ + x^\circ$
- d) $y = 40^\circ + 2x^\circ$
- e) Need more information



Q3

This rectangle and triangle have the same area. What is the value of x ?

- a) $x = \frac{6}{5}$
- b) $x = 2$
- c) $x = \frac{18}{5}$
- d) $x = 3$
- e) $x = \frac{22}{17}$

**Q4**

A recipe uses 28 g of butter and 130 ml cream. If the recipe is scaled up so that 98 g butter is used, how much cream will be required?

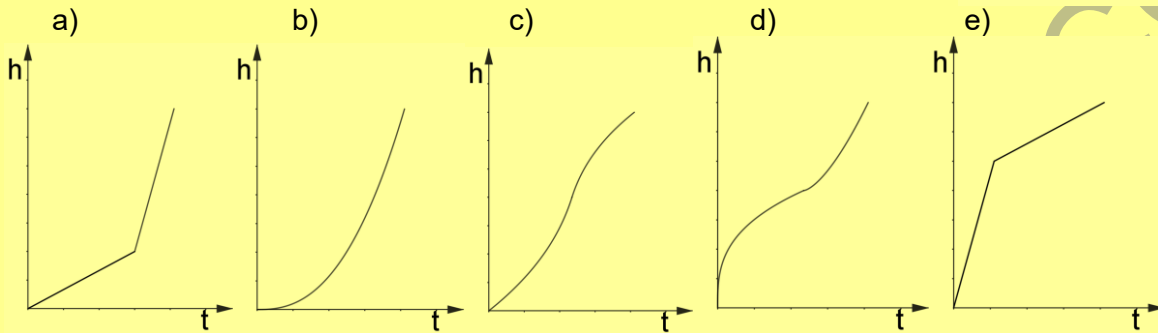
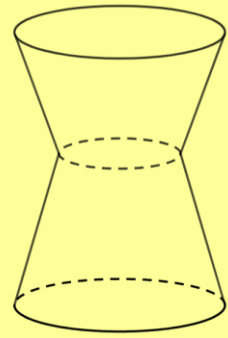
- a) 400 ml
- b) 455 ml
- c) 910 ml
- d) 520 ml
- e) 425 ml

Q5

This glass is made from frustums of two circular cones.

Water is poured into the glass at a constant rate.

Which of the following graphs best shows the height of water in the glass against time?



Q6

Given that $1001 = 7 \times 11 \times 13$, what is $123123 \div 143$?

- a) 821
- b) 1599
- c) 901
- d) 861
- e) 1353

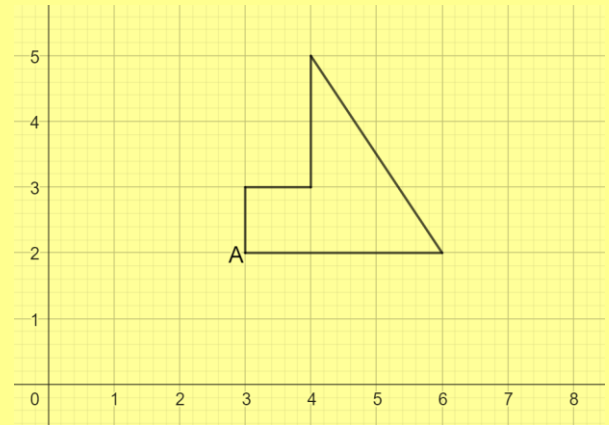
Q7

This diagram shows a shape on a 1cm square grid.

An enlargement of the shape takes point A to (9,6) and B to (18,6).

What is the area of the enlarged shape?

- a) 4 cm^2
- b) 16 cm^2
- c) 36 cm^2
- d) 21 cm^2
- e) 12 cm^2



Q8

Two fair standard dice are thrown.

- If they both show an even number, or both an odd number, you add these to get the score.
- If one shows an even number and one shows an odd number, you subtract the smaller number from the larger one to get the score.

This table show some of the scores:

Which of the following statements is correct?

- a) 7 is the most likely score.
- b) Scoring 3 is more likely than scoring 6.
- c) You can score 9.
- d) Scoring 5 is more likely than scoring 4.
- e) Scoring 1 and scoring 11 are equally likely.

6						
5						
4						
3						
2						
1	2	1	4	3		
	1	2	3	4	5	6

ANSWERS

- 1 e)
- 2 d)
- 3 c)
- 4 b)
- 5 c)
- 6 d)
- 7 c)
- 8 b)

KCLMS specimen MCQ