



Cambridge IGCSE™

CANDIDATE
NAME
CENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--



CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/11

Paper 1 (Core)

May/June 2021

45 minutes

You must answer on the question paper.

You will need: Geometrical instruments

INSTRUCTIONS

- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- Calculators must **not** be used in this paper.
- You may use tracing paper.
- You must show all necessary working clearly and you will be given marks for correct methods even if your answer is incorrect.
- All answers should be given in their simplest form.

INFORMATION

- The total mark for this paper is 40.
- The number of marks for each question or part question is shown in brackets [].

This document has 8 pages.

Formula List

Area, A , of triangle, base b , height h .

$$A = \frac{1}{2}bh$$

Area, A , of circle, radius r .

$$A = \pi r^2$$

Circumference, C , of circle, radius r .

$$C = 2\pi r$$

Curved surface area, A , of cylinder of radius r , height h .

$$A = 2\pi rh$$

Curved surface area, A , of cone of radius r , sloping edge l .

$$A = \pi rl$$

Curved surface area, A , of sphere of radius r .

$$A = 4\pi r^2$$

Volume, V , of prism, cross-sectional area A , length l .

$$V = Al$$

Volume, V , of pyramid, base area A , height h .

$$V = \frac{1}{3}Ah$$

Volume, V , of cylinder of radius r , height h .

$$V = \pi r^2 h$$

Volume, V , of cone of radius r , height h .

$$V = \frac{1}{3}\pi r^2 h$$

Volume, V , of sphere of radius r .

$$V = \frac{4}{3}\pi r^3$$

- [1]

- [1]

Line is a tangent to the circle, centre O . [1]

- litres [1]

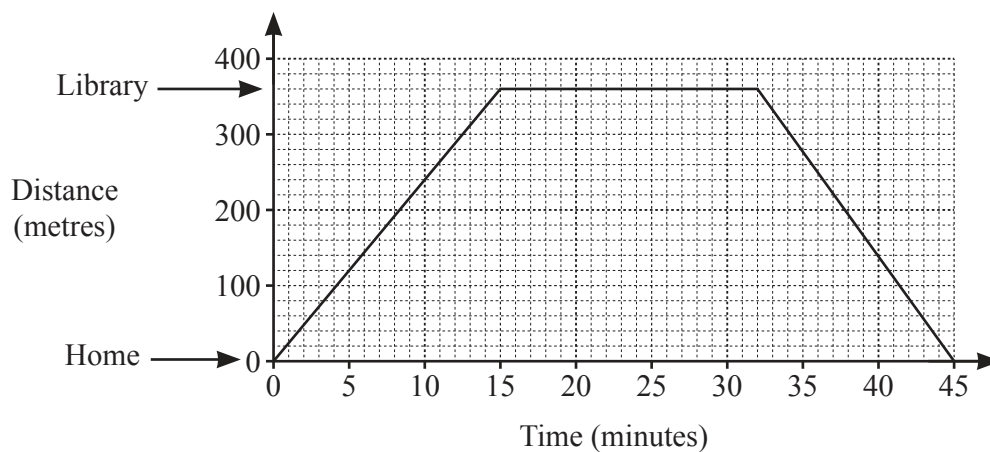
- [1]

- [1]

- [1]

4

7



The travel graph shows Suba's bicycle journey from her home to the library and back.

(a) Write down the distance from Suba's home to the library.

..... m [1]

(b) Write down the number of minutes Suba was in the library.

..... min [1]

8 These are the test results of 12 students.

17 21 9 11 24 21 8 15 12 6 10 21

(a) Find the median.

..... [2]

(b) Write down the mode.

..... [1]

(c) Find the range.

..... [1]

9 $P = \{\text{Prime number less than } 10\}$

Write down the members of set P .

..... [2]

5

10 Work out 60% of 35.

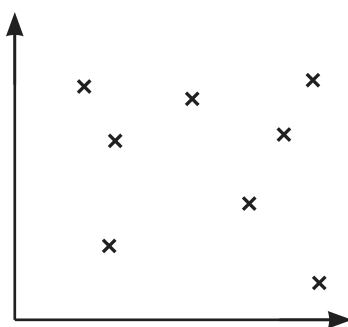
..... [2]

11 Simplify.

$$w \times w \times w$$

..... [1]

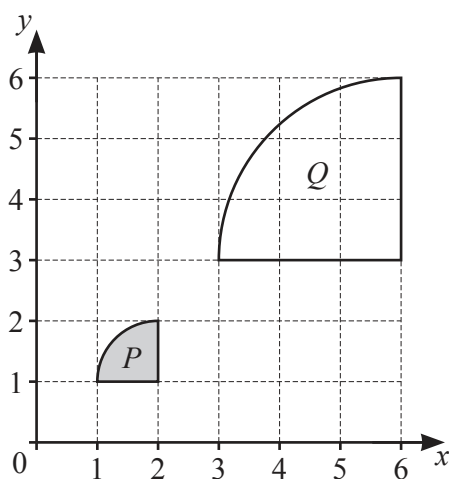
12



What type of correlation is shown on the scatter diagram?

..... [1]

13



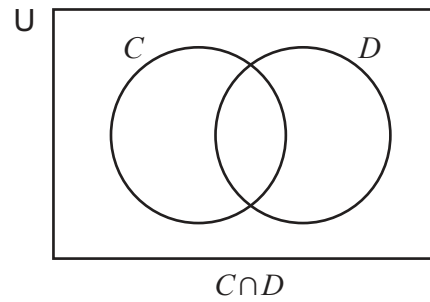
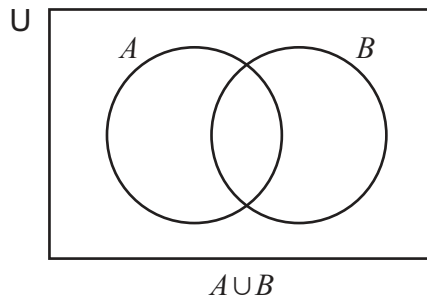
Describe fully the **single** transformation that maps shape P onto shape Q .

.....

..... [3]

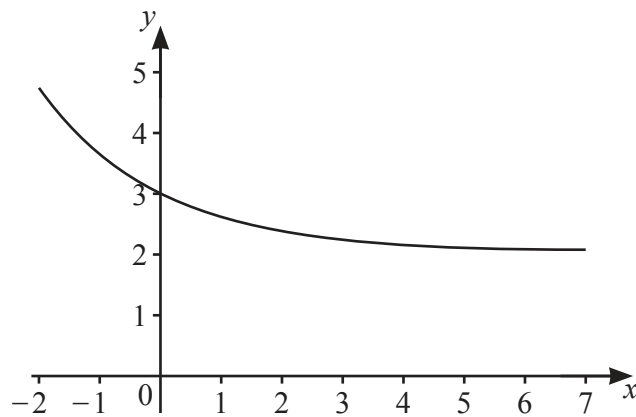
6

14 Shade the region indicated below each Venn diagram.



[2]

15



The diagram shows the graph of a function with one asymptote.

On the diagram, draw the asymptote.

[1]

16 Solve the inequality $2x \leq 10$.

..... [1]

17 Find the highest common factor (HCF) of 70 and 80.

..... [1]

18 A train travels 250 metres in 5 seconds.

Work out its average speed in kilometres per hour.

..... km/h [3]

19 Simplify.

$$\frac{12}{x} \times \frac{5}{2y}$$

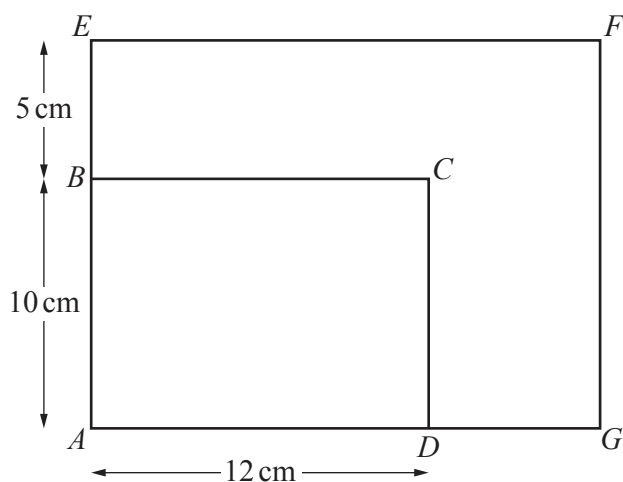
..... [2]

20 $f(x) = \frac{x-3}{2}$ for $-5 \leq x \leq 21$

Find the range of $f(x)$.

..... [2]

21



NOT TO
SCALE

Rectangles $ABCD$ and $AEFG$ are mathematically similar.

Work out EF .

$EF =$ cm [2]

Questions 22 and 23 are printed on the next page.

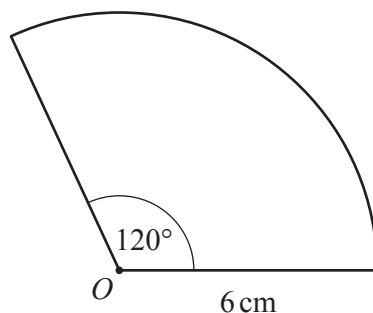
8

- 22 A is the point $(-3, 1)$ and B is the point $(1, 3)$.

Find the gradient of the line AB .

..... [2]

23



NOT TO
SCALE

The diagram shows a sector of a circle centre O , radius 6 cm .

Find the area of the sector.

Leave your answer in terms of π .

..... cm^2 [2]

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which itself is a department of the University of Cambridge.