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Cambridge Assessment International Education

Cambridge IGCSE™

CANDIDATE NAME

CENTRE NUMBER | | | | | |

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9819439892

CAMBRIDGE INTERNATIONAL MATHEMATICS **0607/11**

Paper 1 (Core) **October/November 2022**

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.

DC (CJ/SW) 301813/2
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[Turn over

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

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Answer **all** the questions.

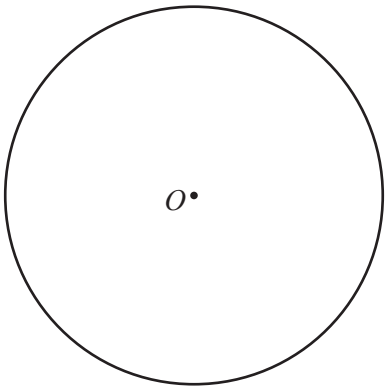
1 Work out how many days there are in 12 weeks.

..... days [1]

2 Write 6847 correct to the nearest hundred.

..... [1]

3

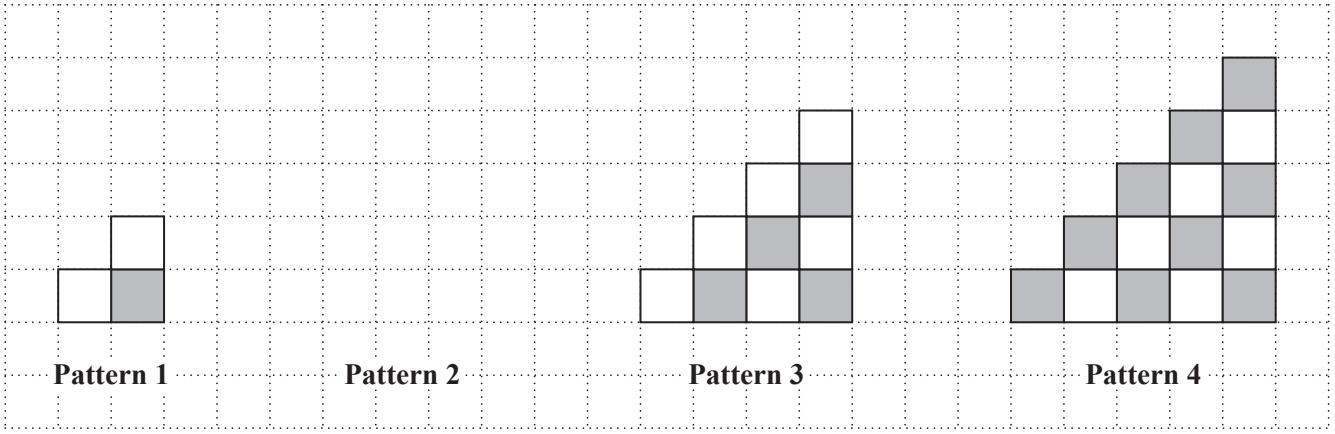


On the circle, centre O, draw a radius. [1]

4 Find 10% of 950.

..... [1]

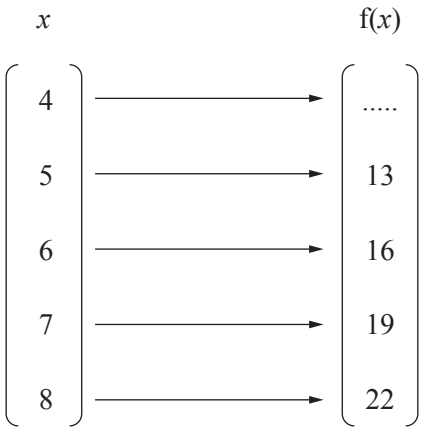
5 Draw Pattern 2 in this sequence.



[1]

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6 Complete the mapping diagram.



[1]

7 Simplify.

$12f - 2f + 4f$

..... [1]

8 In a class of 42 students, $\frac{2}{7}$ are girls.

Work out the number of boys in the class.

..... [2]

9 Write down the integer that is nearest to $\sqrt{39}$.

..... [1]

10 Work out.

$(10 - 15) \times -4$

..... [1]

11 The marks for 19 students in a test are recorded below.

72	84	75	100	87	95	81	72	90	89
98	87	74	100	79	85	91	76	93	

(a) Complete an ordered stem-and-leaf diagram.

7	
8	
9	
10	

Key ..... | ..... represents .....

[3]

(b) How many students scored less than 84?

..... [1]

(c) Write down the median.

..... [1]

12 $h(x) = \frac{5x-1}{2}$

Work out $h(2)$.

..... [1]

13 Work out.

$$\frac{2}{5} + \frac{9}{20}$$

..... [2]

14 Simplify.

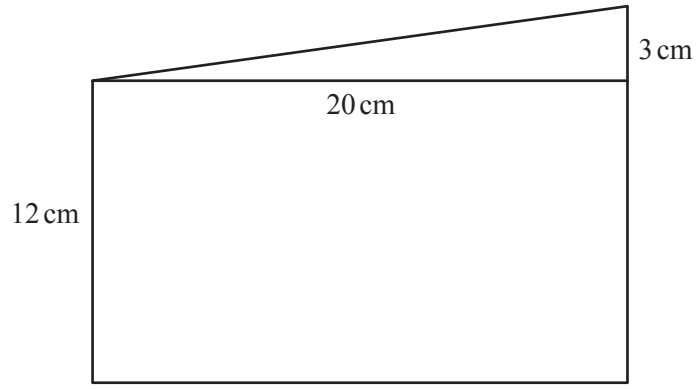
$$y \div y$$

..... [1]

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15



NOT TO SCALE

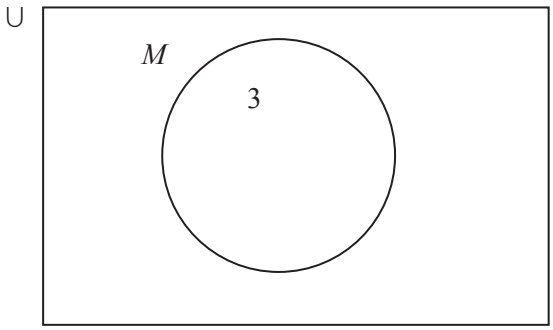
The diagram shows a triangle of base 20 cm and height 3 cm attached to a rectangle with sides of length 20 cm and 12 cm.

Find the total area of the shape.

..... cm^2 [2]

16 $\cup = \{3, 4, 5, 6, 7, 8, 9, 10, 11, 12\}$
$M = \{\text{multiples of } 3\}$

(a) Complete the Venn diagram.



[1]

(b) Write down n(M).

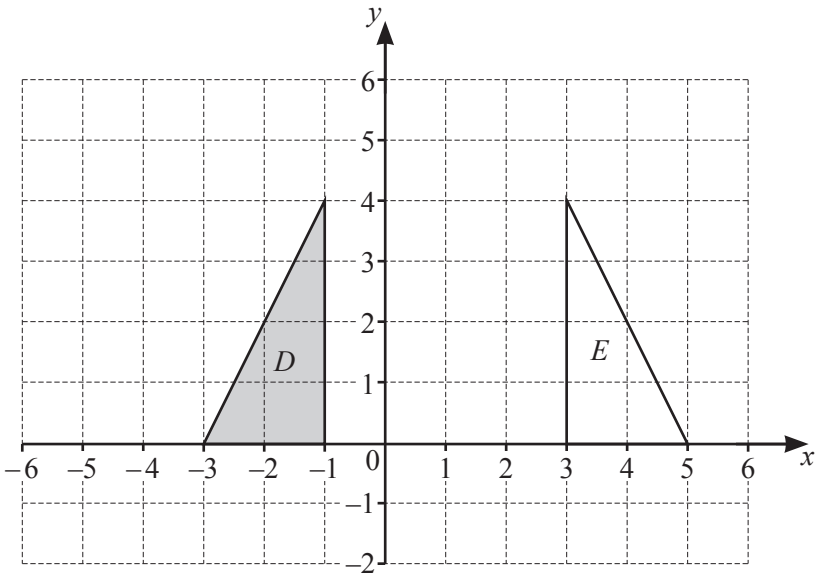
..... [1]

17 Find the equation of the line parallel to the line $y = 2x + 5$ that passes through the point $(0, -3)$.

$y =$ ..... [2]

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18



Describe fully the **single** transformation that maps triangle *D* onto triangle *E*.

.....

..... [2]

19 A fair 6-sided die is numbered 1, 2, 3, 4, 5 and 6.
The die is thrown twice.

Find the probability that the die lands on 4 both times.

..... [2]

20 Find the highest common factor (HCF) of 26 and 78.

..... [1]

21 Solve.

$5x + 7 \geqslant -3$

..... [2]

Questions 22, 23 and 24 are printed on the next page.

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22 These are the first five terms in a sequence.

$$-2 \quad 2 \quad 6 \quad 10 \quad 14$$

Find the nth term.

..... [2]

23 Idris runs at an average speed of 5 m/s.

Find how long he takes to run 3 km.

..... seconds [3]

24 Solve the simultaneous equations.

$$x - 2y = 4$$
$$x + 3y = -1$$

$x =$ .....

$y =$ ..... [2]

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