Cambridge Assessment International Education

Cambridge IGCSE™

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER				

7826623390

CAMBRIDGE INTERNATIONAL MATHEMATICS **0607/11**

Paper 1 (Core) **May/June 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.

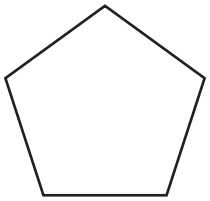
[Turn over

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

Answer **all** the questions.

1



Write down the mathematical name for this shape.

..... [1]

2 Change 21 days into weeks.

..... weeks [1]

3 In a shop, there are 3 red roses, 5 white roses and 4 yellow roses.
Milo chooses a rose at random.

Which colour of rose is he most likely to choose?

..... [1]

4 A carton contains 1 litre of juice.
The juice is poured into glasses.
A full glass holds 300 ml of juice.

Complete the statement.

There are ..... full glasses and ..... ml of juice left. [2]

5 Write down the value of $\sqrt{121}$.

..... [1]

6 Find $\frac{3}{5}$ of 30.

..... [1]

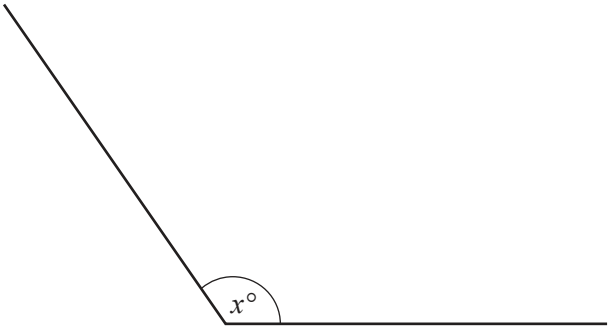
7

	Boys	Girls	Total
Swimming	13		30
Football	26	2	28
Running	3	7	
Cycling		8	12
Total	46	34	80

The table shows the favourite sports of 80 students.

Complete the table. [2]

8 Measure angle x.



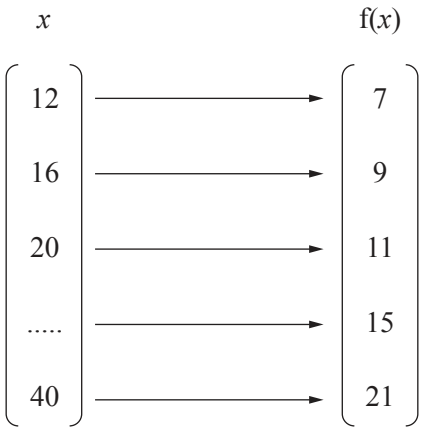
$x =$ ..... [1]

9 Complete this statement.

$$\frac{1}{25} = \frac{\square}{100} = \square\ \%$$

[1]

10 Complete the mapping diagram.



[1]

11 Three packets of sweets cost 60 cents.

Work out the cost of four packets of these sweets.

..... cents [1]

12 Work out.

$$(5-7)\times(1-4)$$

..... [2]

13 Work out.

$$\frac{3}{7}\times\frac{5}{9}$$

Give your answer as a fraction in its lowest terms.

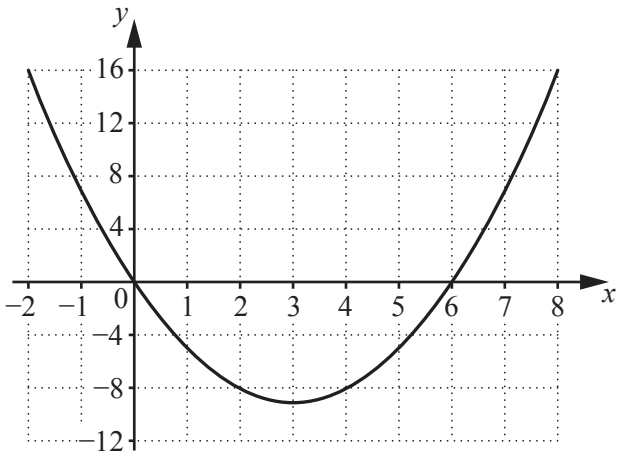
..... [2]

14 The value of a car is \$3000.
At the end of one year the value of the car has reduced by 25%.

Work out the value of the car at the end of one year.

\$ ..... [2]

15



This is the graph of $y = x^2 - 6x$.

(a) On the grid, draw the line of symmetry. [1]

(b) Write down the equation of this line of symmetry.

..... [1]

16 Factorise fully.

$$8xy - 4x$$

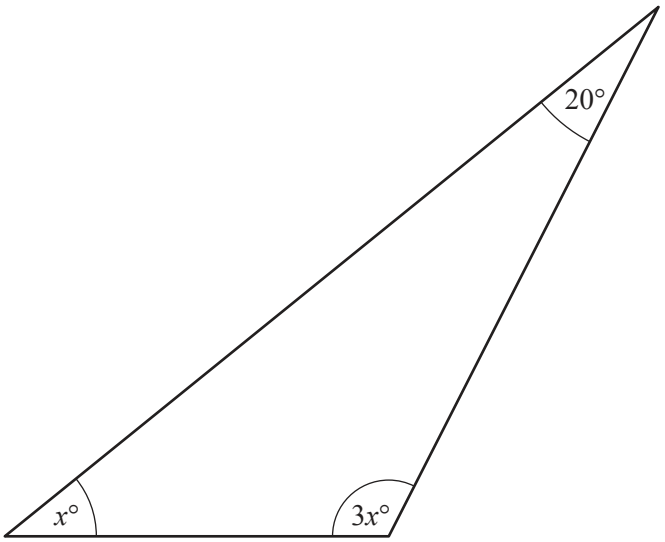
..... [2]

17 The probability that a bus is not late is always 0.9 .
Heather uses the bus 20 times.

Work out how many times the bus is expected to arrive late.

..... [2]

18



NOT TO SCALE

Work out the value of x.

..... [2]

19 Write the ratio 360 : 200 : 120 in its simplest form.

..... : ..... : ..... [2]

20 Solve the simultaneous equations.

$$5x + 2y = 30$$
$$3x + 4y = 32$$

$x =$ .....

$y =$ ..... [3]

Questions 21, 22 and 23 are printed on the next page.

21 Write as a single fraction.

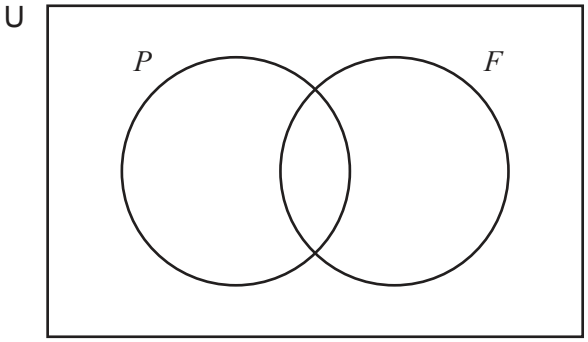
$$\frac{x}{2} - \frac{y}{3}.$$

..... [2]

22 There are 112 books on a bookshelf.

84 are paperback books (P).
59 are fiction books (F).
37 of the paperback books are fiction books.

(a) Complete the Venn diagram.



[2]

(b) Find $\mathrm{n}(P \cup F)'$.

..... [1]

(c) What type of books are represented by $(P \cup F)'$?

..... [1]

23 $9^{-5} \div 9^{-3} = 9^k$

(a) Find the value of k.

$k =$ ..... [1]

(b) Using your answer to **part (a)**, write 9^k as a fraction.

..... [1]