Cambridge Assessment International Education

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6568146797

CAMBRIDGE INTERNATIONAL MATHEMATICS **0607/22**

Paper 2 (Extended) **May/June 2020**

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. Blank pages are indicated.

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[Turn over

Formula List

For the equation $ax^2 + bx + c = 0$ $\quad x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

Curved surface area, A, of cylinder of radius r, height h. $\quad A = 2\pi rh$

Curved surface area, A, of cone of radius r, sloping edge l. $\quad A = \pi rl$

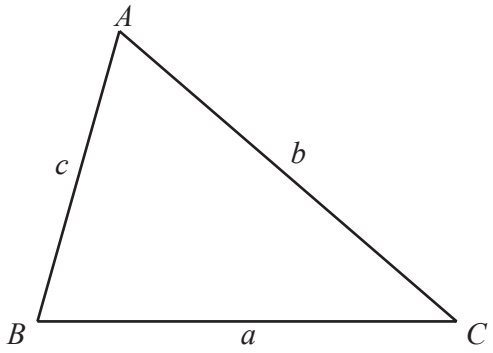
Curved surface area, A, of sphere of radius r. $\quad A = 4\pi r^2$

Volume, V, of pyramid, base area A, height h. $\quad V = \frac{1}{3}Ah$

Volume, V, of cylinder of radius r, height h. $\quad V = \pi r^2 h$

Volume, V, of cone of radius r, height h. $\quad V = \frac{1}{3}\pi r^2 h$

Volume, V, of sphere of radius r. $\quad V = \frac{4}{3}\pi r^3$



$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$a^2 = b^2 + c^2 - 2bc\cos A$$

$$\text{Area} = \frac{1}{2}bc\sin A$$

Answer **all** the questions.

1 31 37 39 49 51 53 77 87

From this list write down **all** the prime numbers.

..... [2]

2 Work out 15% of 600.

..... [2]

3 Work out.

(a) 0.06×0.12

..... [1]

(b) 0.2^3

..... [1]

(c) $\frac{0.4}{0.08}$

..... [1]

4 A bag contains red balls, blue balls and green balls only.
There are twice as many blue balls as green balls.
There are twice as many red balls as blue balls.
There are 16 blue balls in the bag.

Find the total number of balls in the bag.

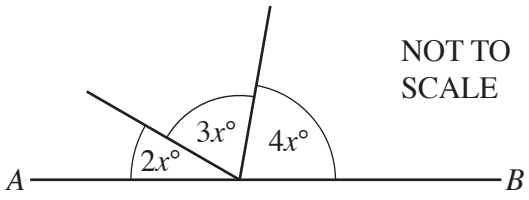
..... [2]

5 Dippi buys 5 burgers and 4 bags of chips for a total cost of \$8.10 .
Burgers cost \$1.10 each.

Find the cost of one bag of chips.

\$ ..... [3]

6



AB is a straight line.

Find the value of x.

$x =$ ..... [2]

7 Work out the following, giving each answer in standard form.

(a) $(4.3 \times 10^4) \times (3 \times 10^{-4})$

..... [2]

(b) $(6 \times 10^{-2}) + (3 \times 10^{-3})$

..... [2]

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8 Solve the simultaneous equations.

$$3x + 2y = -1$$
$$7x - y = 26$$

$x =$ .....

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

9 The interior angle of a regular polygon is 150°.

Find the number of sides of this polygon.

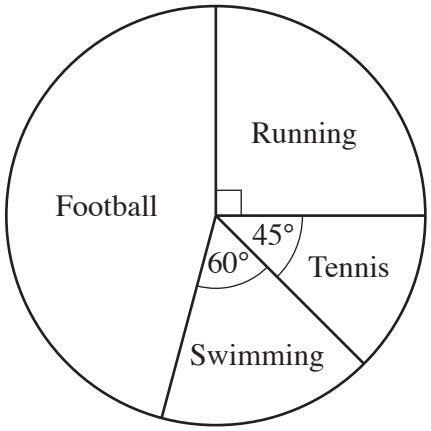
..... [3]

10 Rearrange the formula to make x the subject.

$$y(x + 4) = 2$$

$x =$ ..... [2]

11



The pie chart shows the favourite sports of all the students at a school.
180 students chose running as their favourite sport.

Work out

(a) the total number of students at the school,

..... [1]

(b) the number of students that chose football as their favourite sport.

..... [2]

12 Factorise.

$$2x^2 - 3x - 5$$

..... [2]

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13 Solve.

$$(x-4)(x+3) > 0$$

..... [2]

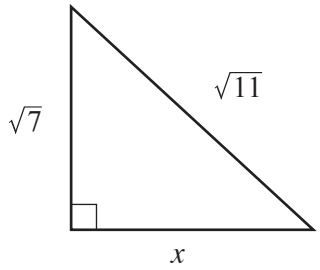
14 A is the point (1, 7) and B is the point (4, 13).

Find the equation of the perpendicular bisector of AB in the form $y = mx + c$.

$y =$ ..... [5]

Question 15 is printed on the next page.

15



NOT TO SCALE

Find the value of x.

$x =$ ..... [2]

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