

Practice
Questions



INTERNATIONAL COMPETITIONS AND ASSESSMENTS FOR SCHOOLS MATHEMATICS

STUDENT'S NAME:

DO NOT OPEN THIS BOOKLET UNTIL INSTRUCTED.

Read the instructions on the **ANSWER SHEET** and fill in your **NAME, SCHOOL** and **OTHER INFORMATION**.

Use a 2B or B pencil.

Do **NOT** use a pen.

Rub out any mistakes completely.

You **MUST** record your answers on the **ANSWER SHEET**.

There are **3 MULTIPLE-CHOICE QUESTIONS** (1–3).

Use the information provided to choose the **BEST** answer from the four possible options.

On your **ANSWER SHEET** fill in the oval that matches your answer.

There is **ONE FREE-RESPONSE QUESTION** (4).

Write your answer in the box provided on the **ANSWER SHEET**.

Your score will be the number of correct answers.

Marks are **NOT** deducted for incorrect answers.

You may use a ruler and spare paper.

A **CALCULATOR** is required.

PLEASE SEE BACK COVER FOR A LIST
OF THE YEAR LEVELS THAT SHOULD
SIT THIS PAPER

TO ANSWER THE QUESTIONS

MULTIPLE CHOICE

Questions 1 to 3

Example: $4 + 6 =$

- (A) 2
- (B) 9
- (C) 10
- (D) 24

The answer is 10, so fill in the oval as shown.

- (A) (B) (C) (D)

FREE RESPONSE

Question 4.

Example: $6 + 6 =$

- The answer is 12, so WRITE your answer in the boxes.
- Write only ONE digit in each box as shown.

	1	2	
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START

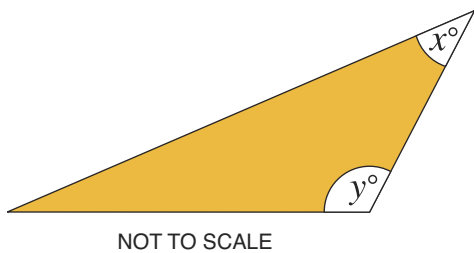
1 (A) (B) (C) (D)

2 (A) (B) (C) (D)

3 (A) (B) (C) (D)

4

1. This is a diagram of a triangle.

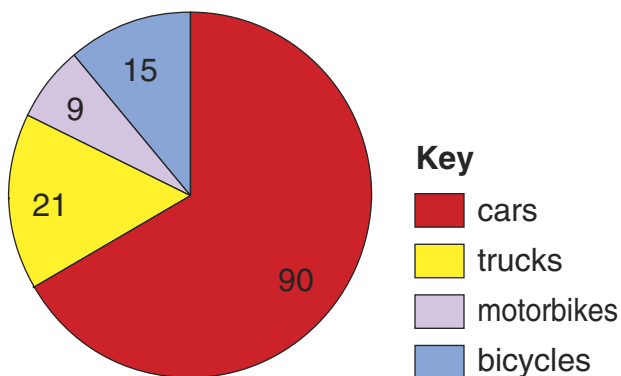


Which of these cannot be values for x and y ?

	x	y
(A)	70	120
(B)	50	120
(C)	70	100
(D)	50	100

2. This is a sector graph (pie graph).

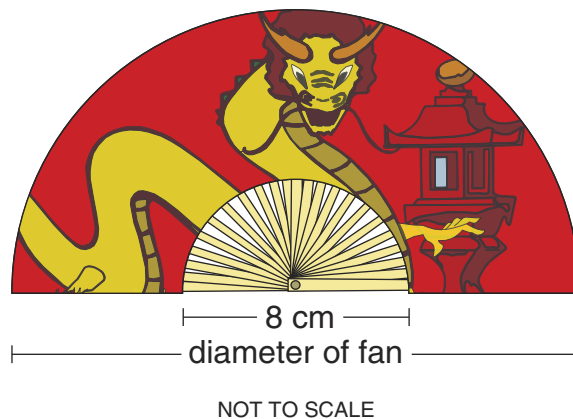
Vehicles Passing the School



What is the angle at the centre for the number of cars passing this school?

- (A) 296°
- (B) 284°
- (C) 257°
- (D) 240°

3. Here is a picture of a fan.



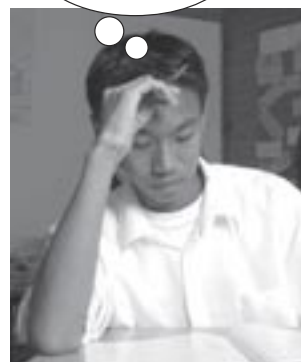
The paper part of this fan is a semicircle from which a smaller semicircle has been cut.
The smaller semicircle has a diameter of 8 cm. The paper part of the fan has an area of 140 cm^2 .

What is the diameter of the fan, in cm, correct to one decimal place?

- (A) 7.8
- (B) 10.3
- (C) 15.6
- (D) 20.5

4. Ricky is thinking of a 3-digit number.

"If I subtract 9 from the number, the result will be divisible by 9.
If I subtract 10 from the number, the result will be divisible by 10.
If I subtract 11 from the number, the result will be divisible by 11."



What number is Ricky thinking of?

(Write only the number on your answer sheet.)

END OF PAPER

**THE FOLLOWING YEAR LEVELS
SHOULD SIT FOR THIS PAPER:**

AUSTRALIA: Year 9
BRUNEI: Form 4
INDONESIA: Year 10
MALAYSIA: Form 3
NEW ZEALAND: Year 10
PACIFIC: Year 9
SINGAPORE: Sec 2
SOUTH AFRICA: Grade 9



Question solutions–Paper G

Question 1

Answer key: A

Category: Space and geometry

Options

Reasoning for options

- A Correct. The sum of x and y adds to 190° (more than the angle sum)
B Incorrect. The sum of x and y is less than 180° .
C Incorrect. The sum of x and y is less than 180° .
D Incorrect. The sum of x and y is less than 180° .

Difficulty level: Easy. About 80-100% expected corrected.

Question 2

Answer key: D

Category: Chance and data

Options

Reasoning for options

- A Incorrect guess.
B Incorrect guess.
C Incorrect guess.
D Correct.

The total number of vehicles = 135

The angle at the centre for cars = $\frac{360}{135} \times 90$
= 240

Difficulty level: Medium. About 31-79% expected correct.

Question 3

Answer key: D

Category: Measurement

Options

Reasoning for options

- A 7.8 is the radius when working with half the area of a circle.
B 10.25 is the radius of the fan, not diameter.
C You have worked with the area of only half the fan.
D Correct

Difficulty level: Medium. About 31-79% expected correct.

Question 4

Answer key: 990

Category: Number

Reasoning

Lowest common multiple of 9, 10 and 11

Difficulty level: Hard. Less than 31% expected correct.
