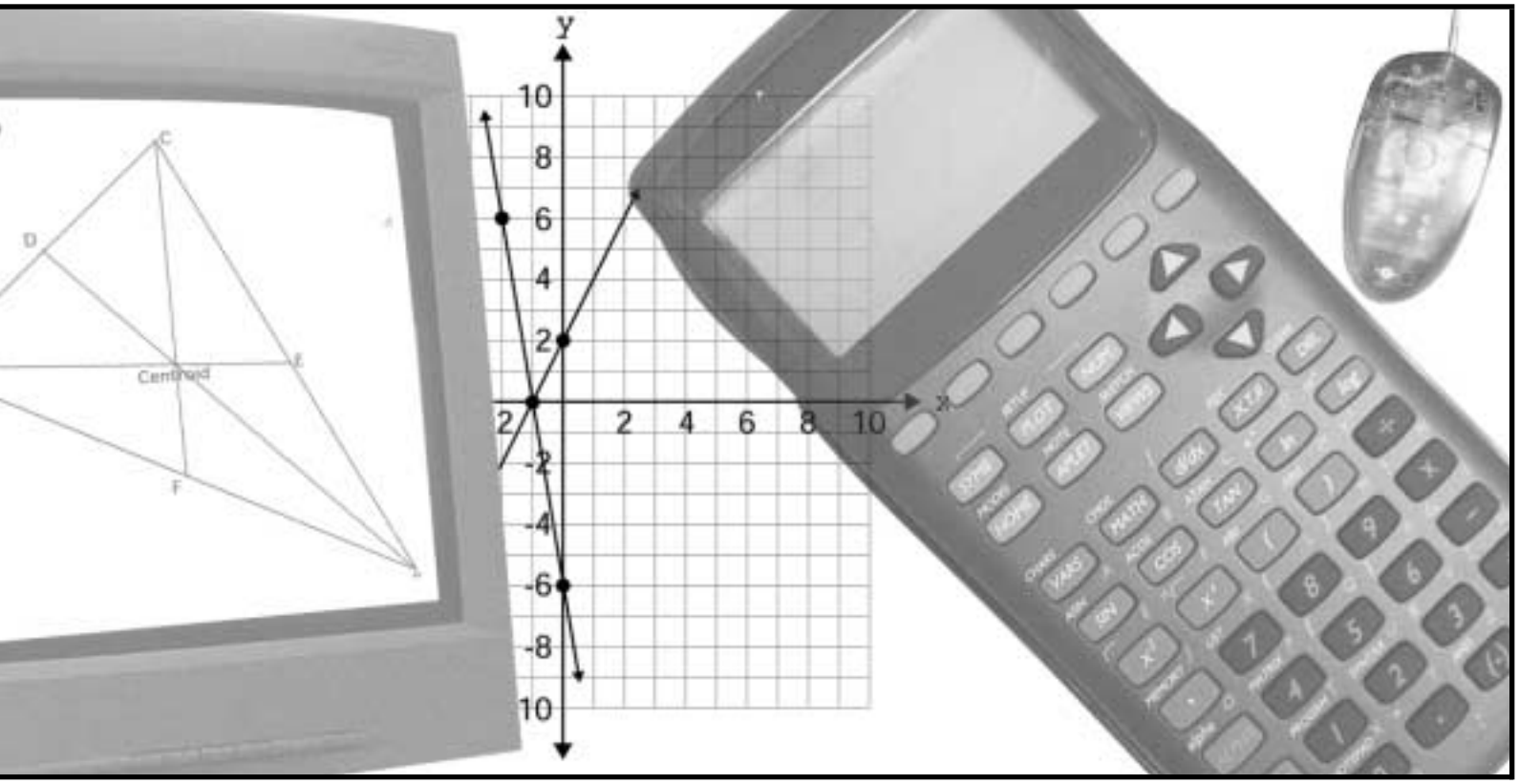
Grade 9 Assessment of Mathematics, 2002–2003




# Academic Booklet 1

EQAO

Education
Quality and
Accountability
Office

Education Quality and Accountability Office

# Student Answer Sheet— Booklet 1

Please ensure that all your answers to the multiple-choice questions in *Booklet 1* are entered on this Student Answer Sheet. To ensure your multiple-choice answers are included in the calculation of your final results, they must be entered on this sheet.

To indicate the correct answer, **fill in the circle completely using an HB pencil,** as shown below.

Correct ● Incorrect ⊗ ⊘ ◒ ◉

If you fill in more than one answer to a question, the question will be scored incorrect. To make a correction, cleanly erase the answer you wish to change and fill in the circle for your new answer.

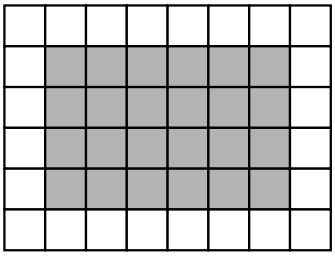
| | | | | |
|---|---|---|---|---|
| **1.** | Ⓐ | Ⓑ | Ⓒ | Ⓓ |
| **2.** | Ⓕ | Ⓖ | Ⓗ | Ⓙ |
| **3.** | Ⓐ | Ⓑ | Ⓒ | Ⓓ |
| **4.** | Ⓕ | Ⓖ | Ⓗ | Ⓙ |
| **5.** | Ⓐ | Ⓑ | Ⓒ | Ⓓ |
| **6.** | Ⓕ | Ⓖ | Ⓗ | Ⓙ |
| **7.** | Ⓐ | Ⓑ | Ⓒ | Ⓓ |
| **8.** | Ⓕ | Ⓖ | Ⓗ | Ⓙ |
| **9.** | Ⓐ | Ⓑ | Ⓒ | Ⓓ |
| **10.** | Ⓕ | Ⓖ | Ⓗ | Ⓙ |
| **11.** | Ⓐ | Ⓑ | Ⓒ | Ⓓ |
| **12.** | Ⓕ | Ⓖ | Ⓗ | Ⓙ |

# Directions to Students About Answering Multiple-Choice Questions

1. For this part of the assessment, make sure that you have the following materials along with *Booklet 1:*
   - a Student Answer Sheet
   - an HB pencil
   - a ruler and a protractor
   - a scientific calculator or graphing calculator
   - some paper for rough work
2. Be sure to read the problem and all four answer choices for each question carefully. When you choose an answer, fill in the appropriate circle on your answer sheet.
3. Always choose the best answer. Mark only one answer for each question.
4. There are 24 questions in *Booklet 1.* Try to answer all of them. Do not spend too much time on any one question.
5. Figures in this section are not drawn to scale.
6. Now do the following sample question. Fill in your choice below the sample question.

## Sample Question

1. Find the area of the shaded region of the rectangle below.




1 square unit

**A** 16 square units

**B** 24 square units

**C** 30 square units

**D** 36 square units

**1.** Ⓐ Ⓑ Ⓒ Ⓓ

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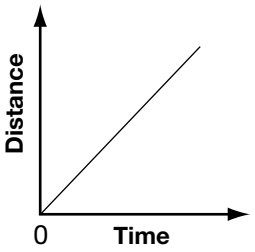
You should have filled in Ⓑ. To make a correction, cleanly erase the answer you wish to change and fill in the circle for your new answer.

7. You will have **30 min** to do the 24 multiple-choice questions.
8. When you see the 

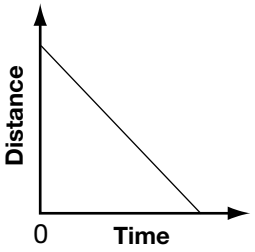
sign, you have completed *Booklet 1*. Check your answers. Then wait quietly for directions from your teacher.

**1.** Which distance-time graph below **best** illustrates a car that **gradually** increases its speed?

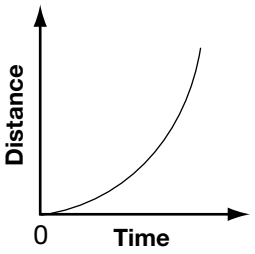
**A**



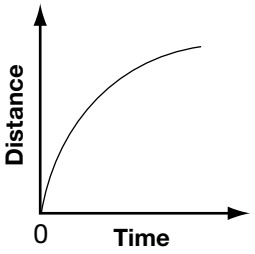

**B**



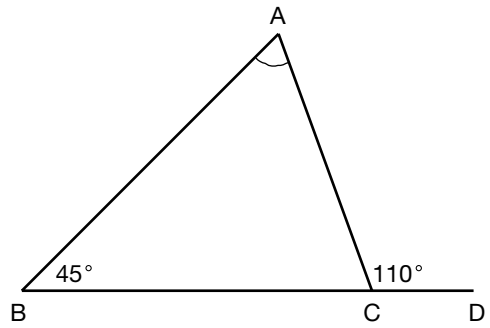

**C**




**D**




**2.** In the figure, $\angle B = 45°$ and BC is produced to D.




If $\angle ACD = 110°$, what is the measure of $\angle A$?

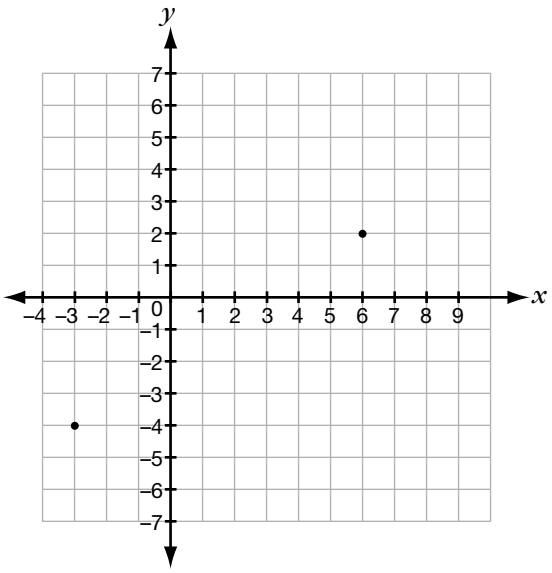
**F** 45°

**G** 55°

**H** 65°

**J** 75°

**3.** The points (–3, –4) and (6, 2) are marked on an $xy$-plane.




Which statement about the line through (–3, –4) and (6, 2) is **not** true?

**A** Its $x$-intercept is 3.

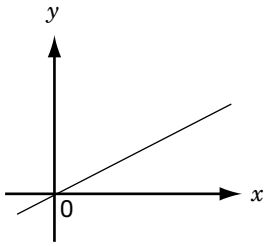
**B** Its slope is positive.

**C** Its $y$-intercept is –2.

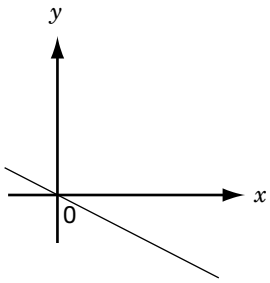
**D** It passes through (4, 9).

**4.** Which graph below is likely the graph for $y = 2x$?

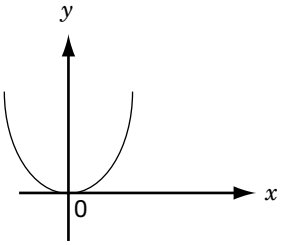
**F**



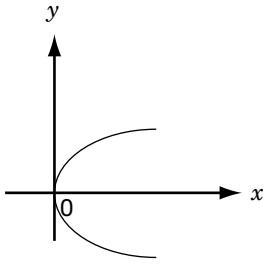

**G**



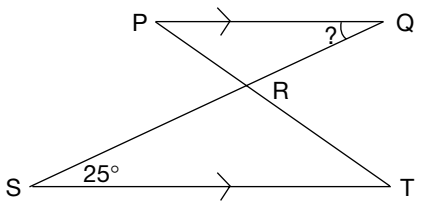

**H**




**J**



**5.** If PQ is parallel to ST, what is the measure of ∠PQR?




**A** 25°

**B** 35°

**C** 60°

**D** 120°

**6.** Pierre and his friends order from a hot dog stand.


Based on the price list given, how many hot dogs and colas do they buy with $17.80?

**F** 3 hot dogs and 5 colas

**G** 5 hot dogs and 3 colas

**H** 6 hot dogs and 4 colas

**J** 5 hot dogs and 5 colas

**7.** The area of a square is between 5000 $cm^2$ and 7500 $cm^2$.

Which value could be the length, in centimetres, of one side of the square?

**A** 50

**B** 60

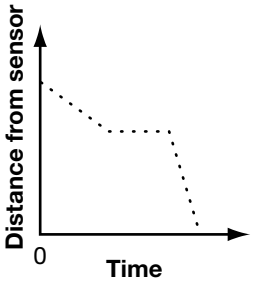
**C** 70

**D** 80

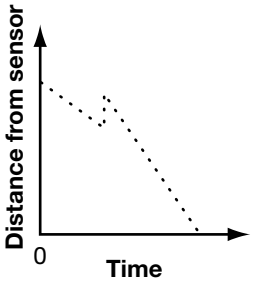
**8.** Mark places a motion sensor on a table. He walks slowly toward the sensor, waits a moment, then walks quickly backward away from the sensor.

Which graph below best represents his motion?

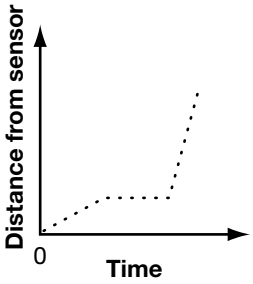
**F**



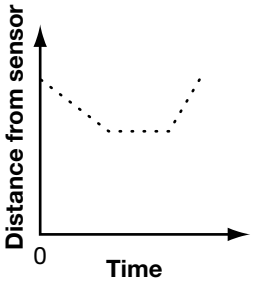

**G**



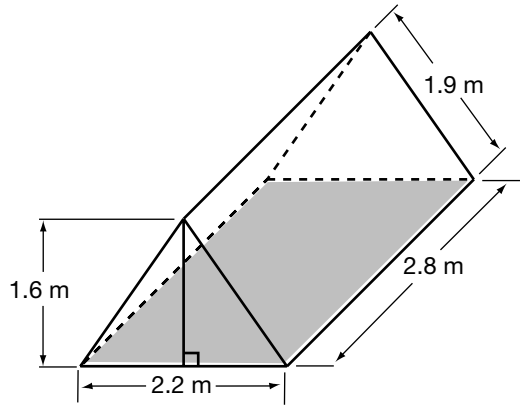

**H**




**J**




**9.** The figure below shows the dimensions of a tent.




What is the total area of the walls on the **two sides** and the **two ends**, correct to the nearest square metre?

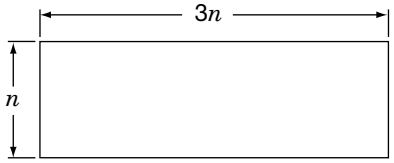
**A** 12 $m^2$

**B** 14 $m^2$

**C** 16 $m^2$

**D** 20 $m^2$

**10.** If the perimeter of this rectangle is 120 units, what is its area in square units?



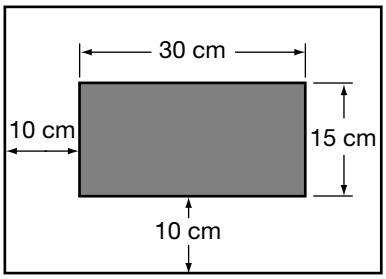

**F** 675

**G** 900

**H** 1225

**J** 2700

**11.** A picture measures 30 cm by 15 cm. The mat around the picture is 10 cm wide as shown.




Find the **area** of the mat.

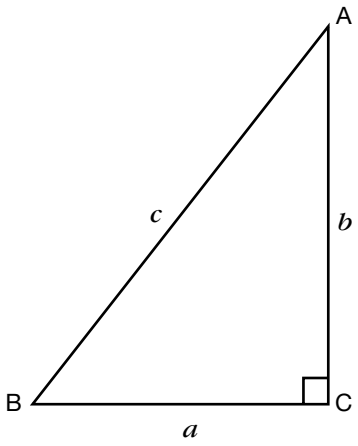
**A** 450 $cm^2$

**B** 1000 $cm^2$

**C** 1200 $cm^2$

**D** 1300 $cm^2$

**12.** $\triangle ABC$ is a right-angled triangle with $BC = a$, $AC = b$ and $AB = c$.




Which statement is **not** true?

**F** $c > a + b$

**G** $c^2 = a^2 + b^2$

**H** $\angle C = 90°$

**J** $\angle A + \angle B = 90°$