

Grade 9 Assessment of Mathematics, 2002–2003

# Applied Booklet 1



Education  
Quality and  
Accountability  
Office



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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.

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

2. (F) (G) (H) (J)

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

4. (F) (G) (H) (J)

5. (A) (B) (C) (D)

6. (F) (G) (H) (J)

7. (A) (B) (C) (D)

8. (F) (G) (H) (J)

9. (A) (B) (C) (D)

10. (F) (G) (H) (J)

11. (A) (B) (C) (D)

12. (F) (G) (H) (J)

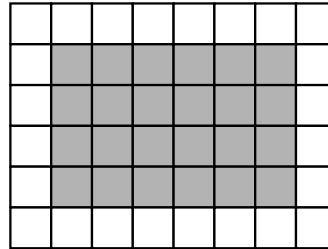
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# Directions to Students About Answering Multiple-Choice Questions

- 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
- 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.
- Always choose the best answer. Mark only one answer for each question.
- There are 24 questions in *Booklet 1*. Try to answer all of them. Do not spend too much time on any one question.
- Figures in this section are not drawn to scale.
- Now do the following sample question. Fill in your choice below the sample question.

## Sample Question

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




 1 square unit

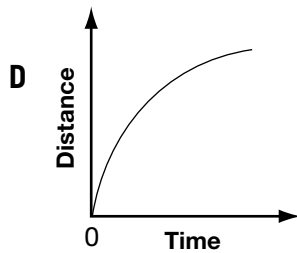
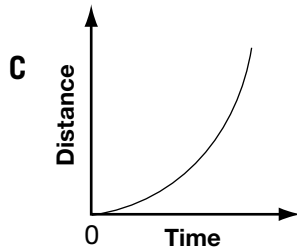
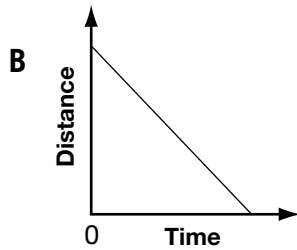
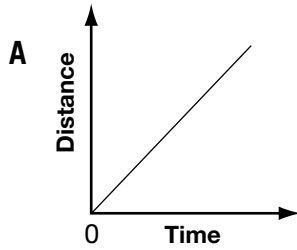
- A** 16 square units  
**B** 24 square units  
**C** 30 square units  
**D** 36 square units
- (A)  (B)  (C)  (D)

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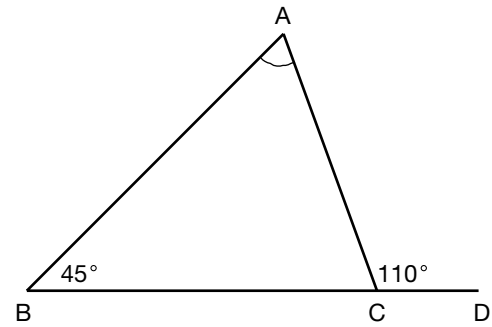
You should have filled in (B). To make a correction, cleanly erase the answer you wish to change and fill in the circle for your new answer.

- You will have **30 min** to do the 24 multiple-choice questions.
- 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?



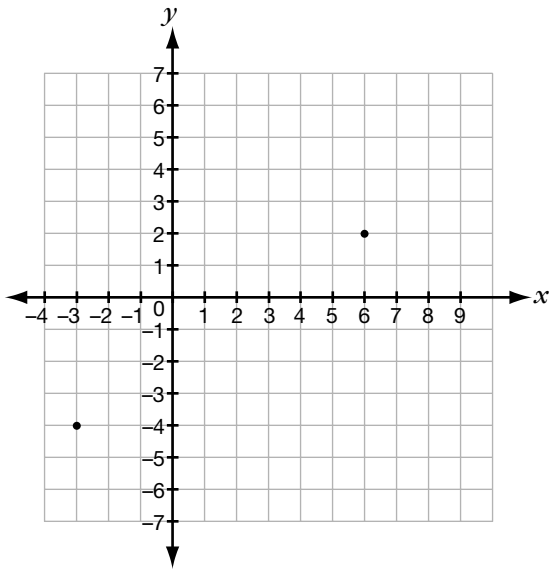
2. In the figure,  $\angle B = 45^\circ$  and  $BC$  is produced to  $D$ .



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

- F**  $45^\circ$   
**G**  $55^\circ$   
**H**  $65^\circ$   
**J**  $75^\circ$

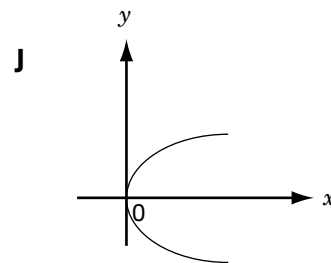
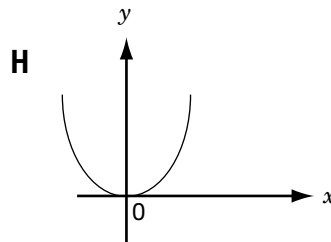
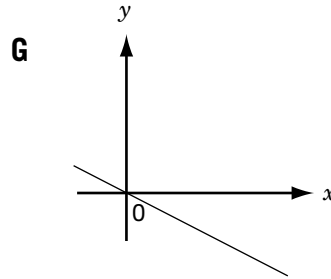
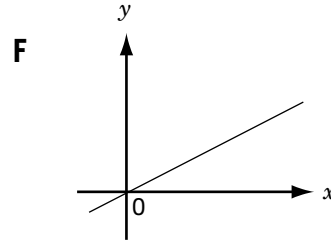
3. The points  $(-3, -4)$  and  $(6, 2)$  are marked on an  $xy$ -plane.



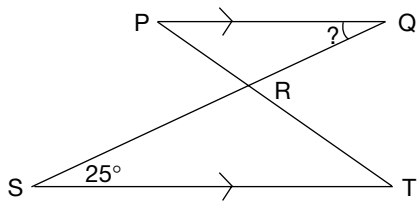
Which statement about the line through  $(-3, -4)$  and  $(6, 2)$  is **not** true?

- 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  $y = 2x$ ?



5. If  $PQ$  is parallel to  $ST$ , what is the measure of  $\angle PQR$ ?



- A  $25^\circ$   
 B  $35^\circ$   
 C  $60^\circ$   
 D  $120^\circ$
6. Pierre and his friends order from a hot dog stand.



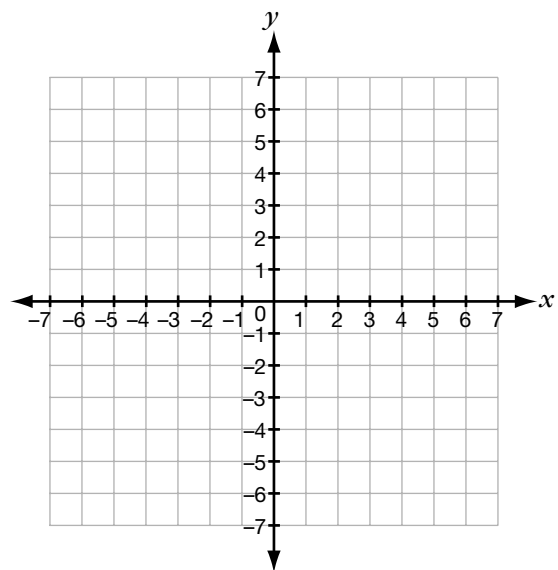
Based on the price list given, how many hot dogs and colas do they buy with \$17.80?

- 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. Marie is making a rectangular flower bed that uses 36 m of border material. Which of these shapes has the greatest area?

- A A square with length 9 m.  
 B A rectangle with length 4 m and width 14 m.  
 C A rectangle with length 6 m and width 12 m.  
 D A rectangle with length 8 m and width 10 m.

8. Which of the following points is in the third quadrant of the  $xy$ -plane?



- F  $(5, 7)$   
 G  $(5, -7)$   
 H  $(-5, 7)$   
 J  $(-5, -7)$

9. A rectangle has a perimeter of 60 cm.  
Which dimensions will ensure the rectangle has the largest possible area?

- A 29 cm by 1 cm
- B 25 cm by 5 cm
- C 20 cm by 10 cm
- D 15 cm by 15 cm

10. Peter is thinking of a number. If he subtracts 6 from the number and multiplies the result by 3, he gets 15.

If the number is represented by  $x$ , which equation below must be true?

- F  $x - 3 \times 6 = 15$
- G  $x - 6 = 3 \times 15$
- H  $3x - 6 = 15$
- J  $3(x - 6) = 15$

11. A music store holds a sale on compact discs. Using a sample of the discs on sale, a scatter plot is made showing how the regular and sale prices compare.



Which point represents the disc that was most expensive before the sale?

- A M
- B N
- C P
- D Q

12. Ivan sells programs at a baseball game. He earns \$20 per game plus \$12 for each box of programs he sells.

If  $x$  represents the number of boxes of programs he sells at the game, which of the following expressions represents Ivan's earnings, in dollars, at that game?

- F  $20 + 12x$
- G  $12 + 20x$
- H  $12(x + 20)$
- J  $20(x + 12)$

