



GUYANA
MINISTRY OF EDUCATION
NATIONAL GRADE SIX ASSESSMENT
2009
MATHEMATICS
PAPER

TIME: 1 hour 10 minutes

READ THESE INSTRUCTIONS CAREFULLY BEFORE YOU ATTEMPT TO ANSWER THE QUESTIONS.

1. **WRITE YOUR CANDIDATE NUMBER ON THE ANSWER SHEET AND UNDERLINE THE SUBJECT.**
2. This test contains 40 questions. You are required to answer **ALL** questions. Four responses are given for each question. The responses are **A, B, C** and **D**. Only **ONE** response is correct.
3. If you are not sure of the answer to a question, then choose the one which you think is **BEST**. On your answer sheet, draw a heavy black line through the letter you have chosen.
4. **BE SURE THAT THE QUESTION NUMBER IN THE BOOKLET IS THE SAME AS THE ONE YOU HAVE USED ON YOUR ANSWER SHEET.**

Here is an example done for you.

1. The sum of 4 and 5 is

(A) 1

(B)

(C) 20

(D) 45

ANSWER SHEET

1. **A a. C D**

A heavy black line has been drawn through the letter **B** on the answer sheet because **9**, the correct answer, is next to **B**.

5. If you make a mistake, erase the line cleanly, then draw a heavy black line through the letter next to the answer you have now chosen.
6. **REMEMBER**, each answer **MUST** only be shown by a heavy black line on your **Answer Sheet**.
7. Remember only **ONE** answer must be provided for each question.
8. **DO NOT TURN OVER THIS-PAGE UNTIL YOU ARE TOLD TO DO SO.**





1. Which ONE is a prime number?

(A) **2**

(B) **4**

(C) **6**

(D)

2. Which ONE is NOT a factor of 12?

(A) **3**

(B) **4**

(C) **5**

(D) **12**

3. Which ONE is a palindrome?

(A) **151**

(B) **231**

(C) **312**

(D) **511**

4. Comparing 14.05 and 14.5, what sign will make the statement true?

14.05 14.5

(A) **<**

(B) **>**

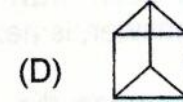
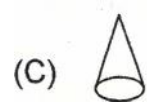
(C) **=**

(D) **≤**

5. Which is a prism?

(A)

(B)



6. Which ONE is a polygon?

(A)

(B) **C:=D'**



7. Angles are measured in
- (A) centimetres (B) degree celcius
(C) degrees (D) percentages

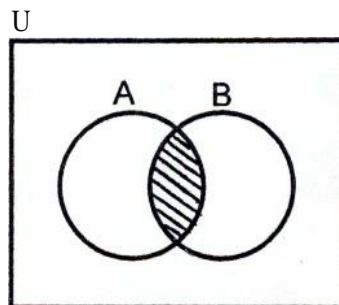
8. The shape that has perimeter is



9. The symbol for intersection is



Study the Venn Diagram below, then answer question 10.



10. The shaded area represents
- (A) $A \cup B$ (B) $A \cap B$
(C) $A \setminus B$ (D) $B \setminus A$

11. $\frac{1}{4}$ is the same as



12. The median of the data below is

65 40 32 21 10

(A) **12**

(B) **32**

(C) **34**

(D) **45**

13. Which of the following is true?

(A) **$40 \times 0 = 0$**

(B) **$40 \times 0 = 40$**

(C) **$40 \times 1 = 1$**

(D) **$40 \times 1 = 41$**

14. The next number in the sequence 1, 2, 4, 7, 11, is

(A) **12**

(B) **14**

(C) **16**

(D) **25**

15. Which is true?

(A) $\frac{2}{3} < \frac{2 \times 2}{3 \times 2}$

(B) $\frac{1}{2} < \frac{1 + 1}{2 + 1}$

(C) $\frac{3}{2} < \frac{3 - 1}{2 - 1}$

(D) $\frac{4}{5} < \frac{4 \div 2}{5 \times 2}$

16. $265 \times 2 + 340 \times 1 =$

(A) **0**

(B)

(C) **340**

(D) **485**

17. $7 \times 7 =$

(A) **1**

(B) **7**

(C) **14**

(D) **49**

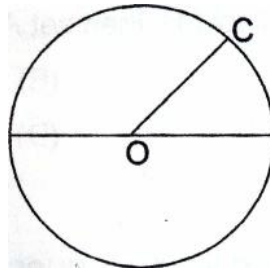


Figure 3

18. In Figure 3 above, AB is the diameter of a circle whose centre is O. The length of AB is 25 cm. What is the length of OC, in cm?
- (A) **5** (B) **7**
 (C) **12.5** (D) **22**

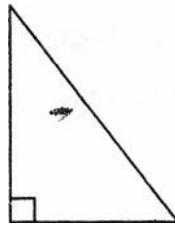


Figure 4

19. Which triangle is congruent to the one in Figure 4?



20. The perimeter of a square is 12 cm. What is its area, in cm^2 ?

- (A) **3** (B) **4**
 (C) **9** (D) **24**

21. The average mass of a class of children is 25 kg. What is the total mass of the class if it has 21 children?

- (A) **21** (B) **25**
 (C) **525** (D) **546**

22. If $A = \{\text{odd numbers from 5 to } 11\}$, then set A is
- (A) $\{3, 5, 7, 9\}$ (B) $\{5, 7, 9, 11\}$
 (C) $\{5, 6, 7, 9, 11\}$

Study the diagram below, then answer question 23.



Figure 5

23. The complement of P in Figure 5 is
- (A) $\{a, b, c, d\}$ (B) $\{d\}$
 (C) $\{c, d\}$ (D) $\{a, b\}$

24. 20% of 150 is

Handwritten calculation:
 $20\% \text{ of } 150 = \frac{20}{100} \times 150 = 30$

- (A) 10 (D) **20**
 (C) **30** (D) **40**



Figure 6

25. The dimension of the photograph in Figure 6 is 10 cm by 4 cm. The ratio of the length to the width is
- (A) 5:2 (B) 5:4
 (C) 1:4 (D) 1:10



26. A piece of paper of area 60 cm^2 is divided into 2 pieces A and B so that the area of A is $\frac{2}{3}$ area of B. The area, in cm^2 , of the larger piece is
- (A) **20** (B) **36**
 (C) **40** (D) **60**

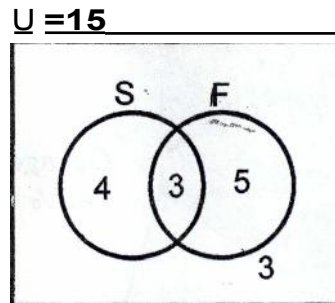
Table 1: Ages of children

Ages in years	No. of children
9	3
10	2
11	16
12	1
13	5

27. Table 1 shows the ages of a number of children in a class. How many children are in the class?
- (A) 15 (B) 16
 (C) **27** (D) **55**
28. The mode of the class is
- (A) ~~2~~ (B) ~~3~~
 (C) ~~16~~ (D) 16
29. The number 15.45 to one decimal place is
- (A) 15.0 (B) 15.4
 (C) 15.5 (D) 16.0

30. Which number when multiplied by 10 will give an answer of 1?
- (A) 0.01 (B) 0.1
(C) **1** (D) **10**
31. Which group of numbers is arranged in ascending order?
- (A) 0.45, 4.5, 5.4, 0.54 (B) 0.54., 5.4, 0.45, 4.5
(C) 5.4, 4.5, 0.54; 0.45 (D) 0.45. 0.54, 4.5, 5.4
32. Estimate the length of XY, in cm.
- (A) 4.5 (B) 5.0
(C) **5.5** (D) **6.5**
33. A pipe can fill a tank in 6 minutes and another pipe can fill the same tank in 12 minutes. If both pipes are turned on together, how long will it take to fill the tank?
- (A) **4** (B) **6**
(C) **12** (D) **18**
34. The circumference of a bicycle wheel is 200 cm. How many revolutions would it take to cover a distance of 5000 cm.
- (A) **25** (B) **250**
(C) **400** (D) **500**

In a group of 15 children, 7 can speak Spanish, 8 can speak French and 3 can speak neither. The diagram below shows this information. Use the diagram to answer questions 35 and 36.

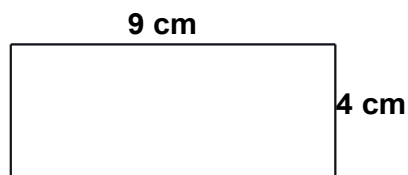


35. What fraction of the group speaks both French and Spanish?

- | | |
|--------------------|---------------------|
| (A) $\frac{3}{15}$ | (B) $\frac{15}{15}$ |
| (C) $\frac{7}{15}$ | (D) $\frac{7}{15}$ |

36. The number of children in the set $S \cup F$ is

- | | |
|---------------|---------------|
| (A) 3 | (B) 4 |
| (C) 15 | (D) 12 |



37. The area of rectangle is 36 cm^2 . If the lengths of the sides are halved, the area, in cm^2 , of the new rectangle is

- | | |
|---------------|---------------|
| (A) 9 | (B) 18 |
| (C) 36 | (D) 54 |

38. The enrolment of a school is 600. If the enrolment is decreased by 20%, and then decreased again by 20%, the enrolment is

- | | |
|----------------|----------------|
| (A) 384 | (B) 480 |
| (C) 576 | (D) 600 |

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 ANSWER SHEET

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MATH ENG SS SC

Candidate Number

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WRITE YOUR CANDIDATE NUMBER AND UNDERLINE THE SUBJECT YOU ARE WRITING AT THE TOP AS WELL AS AT THE BOTTOM OF THIS ANSWER SHEET.

SECTION SCORES

1	2	3	TOTAL

BE SURE THAT MARKS ON THIS SHEET CAN BE EASILY SEEN.
 ERASE COMPLETELY ANY ANSWER YOU WISH TO CHANGE.

- | | | |
|--------------------|--------------------|--------------------|
| 1. A B C D | 15. A B C D | 29. A B C D |
| 2. A B C D | 16. A B C | 30. A B C D |
| 3. A B C D | 17. A B C D | 31. A B C D |
| 4. A B C D | 18. A B C D | 32. A B C D |
| 5. A B C D | 19. A B C D | 33. A B C D |
| 6. A B C D | 20. A B C D | 34. A B C D |
| 7. A B C D | 21. A B C D | 35. A B C D |
| 8. A B C D | 22. A B C D | 36. A B C D |
| 9. A B C D | 23. A B C D | 37. A B C D |
| 10. A B C D | 24. A B C D | 38. A B C D |
| 11. A B C D | 25. A B C D | 39. A B C D |
| 12. A B C | 26. A B | 40. A B C D |
| 13. A C D | 27. A B C D | |
| 14. A B C D | 28. A B C D | |

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DO NOT BEND, FOLD OR **DAMAGE** THIS SHEET

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