

GUYANA
MINISTRY OF EDUCATION
NATIONAL GRADE SIX ASSESSMENT
2012
MATHEMATICS
PAPER 1

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) 9

(C) 20

(D) 45

ANSWER SHEET

1. A ~~B~~ 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.

DO NOT TURN OVER THIS PAGE UNTIL YOU ARE TOLD TO DO SO.

1. What is the value of the underlined digit in 8888?

(A) 8000

(B) 800

(C) 80

(D) 8

2. What is the prime number between 20 and 25?

(A) 21

(B) 22

(C) 23

(D) 24

Study the multiplication exercise below carefully, then answer question 3.

$$\begin{array}{r} 23 \\ \times 13 \\ \hline 230 \\ 69 \\ \hline 299 \end{array}$$

3. What is the multiplicand?

(A) 299

(B) 230

(C) 23

(D) 13

4. A factor of 12 is

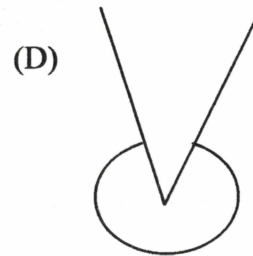
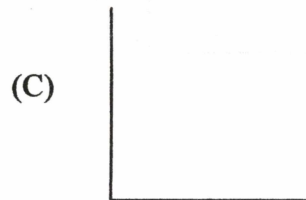
(A) 36

(B) 24

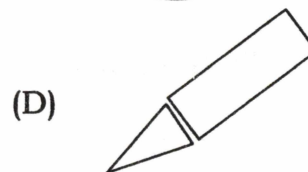
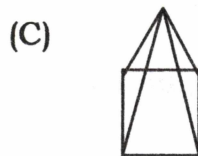
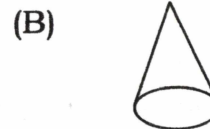
(C) 13

(D) 6

5. Which figure has **two** right angles?



6. Which of the following is a circular base pyramid?



Study Figure 1 below carefully, then answer question 7.

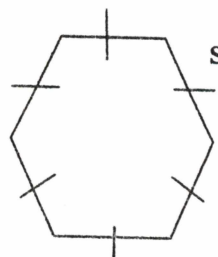


Figure 1

7. The formula for finding the perimeter for the regular hexagon in Figure 1 is

(A) $6s$

(B) $5s$

(C) $4s$

(D) $3s$

Figure 2 below is a cuboid. Use it to answer question 8.

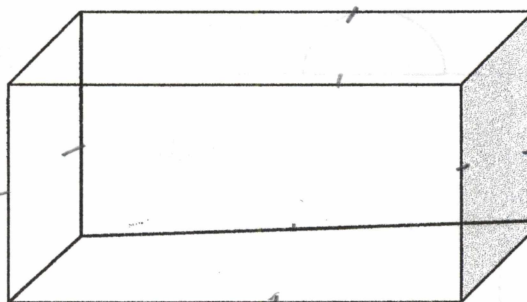
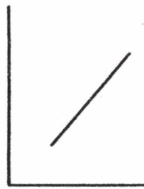


Figure 2

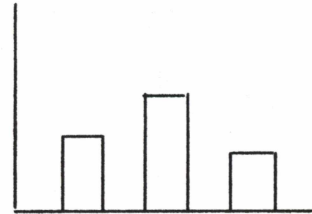
8. How many edges are in the cuboid above?
- (A) 4 (B) 8
(C) 12 (D) 16
9. The set that is equivalent $\{a, b, c\}$
- (A) $\{2, 3, 4, 5\}$ (B) $\{d, e, f, g\}$
(C) $\{7, 8, 9\}$ (D) $\{i, ii, iii, iv\}$
10. Which one is a subset of $\{V, \div, \checkmark, X\}$
- (A) $\{\Delta, V\}$ (B) $\{\checkmark, \square, X\}$
(C) $\{0, \div, \checkmark\}$ (D) $\{X, \div, V\}$
11. Which of the following represents a percentage relationship?
- (A) $9 \div 7$ (B) 7:9
(C) 79% (D) 7.9

12. Which **one** represents a pictograph?

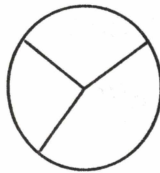
(A)



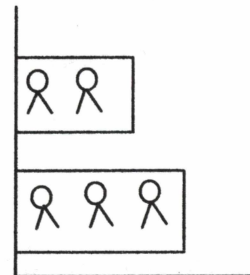
(B)



(C)



(D)



13. How many decades are there in a millennium?

(A) 10

(B) 100

(C) 500

(D) 1000

14. One hundred twenty-one million twelve thousand can be written as

(A) 121 000 012

(B) 121 001 200

(C) 121 012 000

(D) 121 120 000

15. $238.2 \div 100$

(A) 0.2382

(B) 238.2

(C) 23.82

(D) 2.382

16. $\frac{2}{3} \times \frac{2}{5} \times \frac{1}{3}$

(A) $\frac{5}{11}$

(B) $\frac{2}{15}$

(C) $\frac{4}{15}$

(D) $\frac{4}{45}$

17. Which of the following is equal to $60\,000 + 7000 + 80 + 3$?

(A) 670 083

(B) 67 803

(C) 67 083

(D) 6783

Use the Figure 3 below to answer question 18.

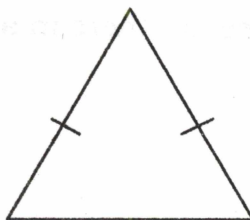


Figure 3

18. Figure 3 is a/an _____ triangle.

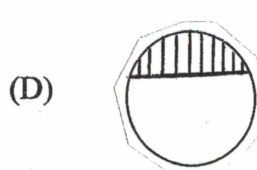
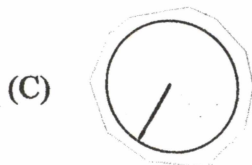
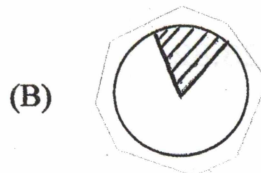
(A) equilateral

(B) obtuse

(C) scalene

(D) isosceles

19. Which diagram shows the segment of the circle?



20. 2300 cm expressed in metres is

(A) 2.3

(B) 23

(C) 230

(D) 2300

Use Figure 4 below to answer question 21.

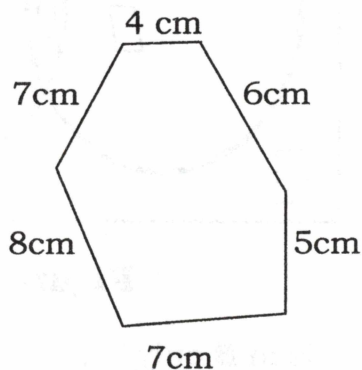


Figure 4

21. The perimeter of the shape in Figure 4 is

(A) 17 cm.

(B) 22 cm.

(C) 26 cm.

(D) 37 cm.

22. How many whole numbers are in the set of numbers greater than 203 but less than 207?

(A) 3

(B) 4

(C) 5

(D) 6

PLEASE GO ON TO THE NEXT PAGE

Study the Venn diagram in figure 5 to answer question 23.

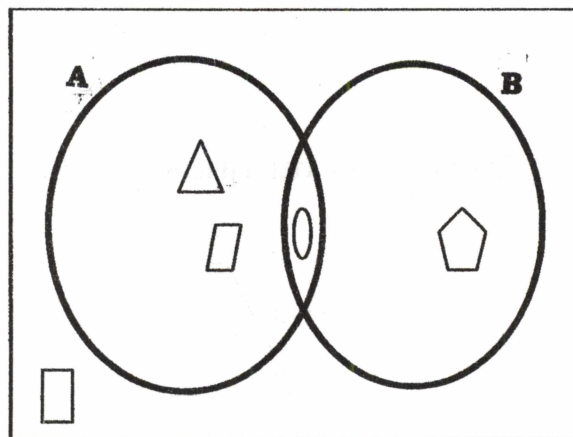
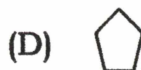
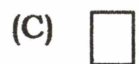
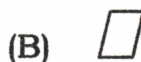
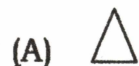


Figure 5

23. Which element is in **B** only?



24. 2.7 expressed as a percentage is

(A) 27%

(B) 100%

(C) 270%

(D) 2700%

25. If 400 is increased by 20%, then the new number is

(A) 80

(B) 380

(C) 420

(D) 480

26. 473% expressed as a decimal is
























(A) 0.473

(B) 4.73

(C) 47.3

(D) 473

Use the graph below to answer questions 27 and 28.

Number of balls collected	
Tony	       
Anil	    
Randy	     
Robert	   

Each  stands for 10 balls.

27. How many balls did Randy collect?
- (A) 6 (B) 16
(C) 30 (D) 60
28. How many balls were collected by Tony and Robert?
- (A) 120 (B) 80
(C) 40 (D) 12
29. The first number in the pattern below is _____ 42, 49, 56, 63.
- (A) 7 (B) 14
(C) 28 (D) 35
30. Roy arrived at school sports at 09.50 hours and spent 4 hours 25 minutes. At what time did he leave?
- (A) 10:30 hours (B) 13:45 hours
(C) 13:30 hours (D) 14:15 hours

31. The **smallest** number that can be divided by 5, 18 and 30 and leaving a remainder of 9 is

(A) 99 (B) 90
(C) 81 (D) 62

Use Figure 6 below to answer question 32.

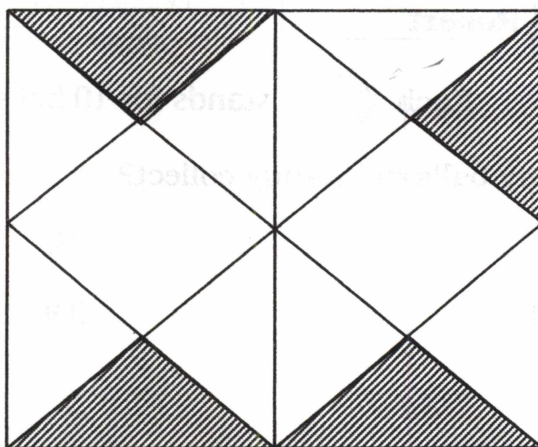


Figure 6

32. What fraction of the whole shape is shaded in Figure 6?

(A) $\frac{4}{8}$ (B) $\frac{1}{4}$
(C) $\frac{1}{8}$ (D) $\frac{1}{16}$

33. The volume of a box = area of base \times height. If the volume of a box is 600 cm^3 , and the length of the base is 12 cm and the height is 10 cm, what is the width in cm of the box?

(A) 5 (B) 60
(C) 120 (D) 6000

Use Figure 7 to answer question 34.

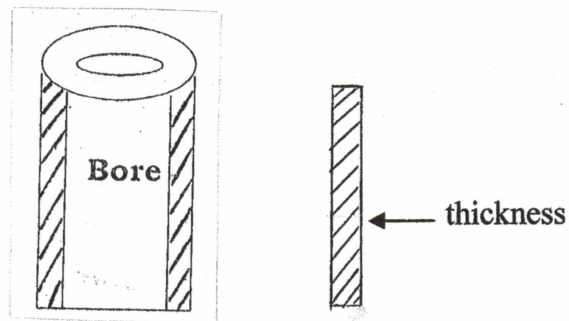
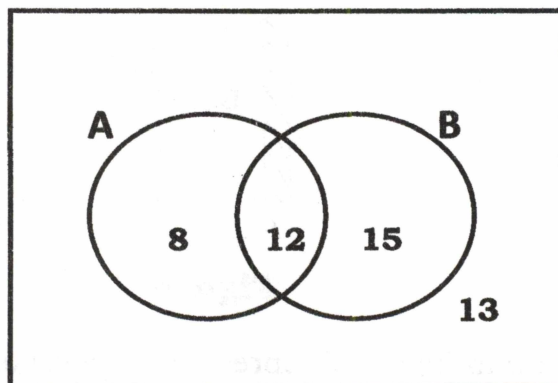


Figure 7

34. The diagram in Figure 7 represents a piece of pipe. The radius of the outer circle of the pipe is 13.5 cm and the radius of the bore is 7.1 cm. What is the thickness of the **pipe**?
- (A) 20.6 cm (B) 7.4 cm
(C) 7.1 cm (D) 6.4 cm
35. The ratio of the length of a school compound to its width is 2:1. If the width is 20 metres, what is the area in metres²?
- (A) 20 (B) 60
(C) 80 (D) 800
36. A marked price for a dress was \$13 000. If 16% VAT is calculated on the marked price, what is the new price for the dress?
- (A) \$15 080 (B) \$12 080
(C) \$11 920 (D) \$ 2 080

Use the Venn diagram in to answer questions 37.



Set A has 20 girls with white socks

Set B has 27 girls with black shoes

13 girls have neither white socks nor black shoes

37. The twelve girls can be described as all girls with

(A) black shoes.

(B) white socks and black shoes.

((C) white socks only.

(D) neither white socks nor black shoes.

38. The average of ten numbers is 65. If one of the numbers is 56, what is the average of the other nine numbers?

(A) 66

(B) 77

(C) 594

(D) 706

The table below shows how exercise books were distributed at each level of Primary schools. Use it to answer questions 39 and 40.

Level	No. of Exercise Books
Upper	$\frac{3}{5}$
Middle	30%
Lower	0.1

39. What percentage of exercise books was distributed at the upper level?
- (A) 6% (B) 8%
- (C) 30% (D) 60%
40. What percentage of exercise books does the middle level have **more** than the lower level?
- (A) 1 (B) 20
- (C) 29 (D) 30

END OF TEST

1. The first part of the report is a summary of the work done during the year.

2. The second part is a detailed account of the experiments carried out.

3. The third part is a discussion of the results obtained.

4. The fourth part is a conclusion drawn from the work.

5. The fifth part is a list of references.

6. The sixth part is a list of symbols and abbreviations.

7. The seventh part is a list of figures.

8. The eighth part is a list of tables.

9. The ninth part is a list of appendices.

10. The tenth part is a list of footnotes.

11. The eleventh part is a list of references.

12. The twelfth part is a list of symbols and abbreviations.

13. The thirteenth part is a list of figures.

14. The fourteenth part is a list of tables.

THE END