

GUYANA
MINISTRY OF EDUCATION
NATIONAL GRADE SIX ASSESSMENT
2010
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.
8. **DO NOT TURN OVER THIS PAGE UNTIL YOU ARE TOLD TO DO SO.**

1. What is the value of the underlined digit in 88888

- (A) 8 000 (B) 800
(C) 80 (D) 8

2. Which is a prime number?

- (A) 7 (B) 9
(C) 15 (D) 21

3. Which is a Roman Numeral?

- (A) * (B) 0
(C) 9 (D) X

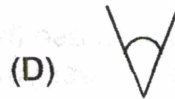
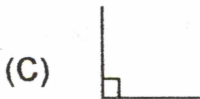
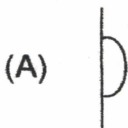
4. Angles are measured in

- (A) litres. (B) squares.
(C) degrees. (D) grams.

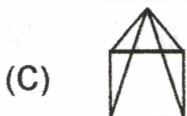
5. A multiple of 12 is

- (A) 1 (B) 2
(C) 21 (D) 24

6. Which is an acute angle?



7. Which of the following is a triangular base pyramid?



8. Which set is equal to donkeys that can fly?
- (A) { } (B) {bat}
- (C) {eagle} (D) {flying fish}
9. A subset of {A, B, C} is
- (A) {A, C, D} (B) {B, C, A}
- (C) {B, A, E} (D) {C, A, G}
10. Which one of the following represents a ratio relationship?
- (A) $8 \div 5$ (B) 8:5
- (C) 85% (D) 8.5

Use Figure 1 below to answer question 11.

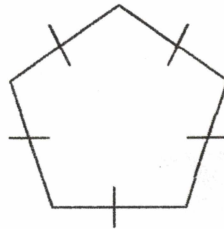

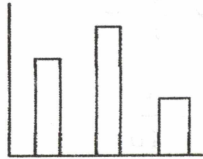
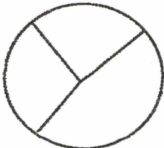
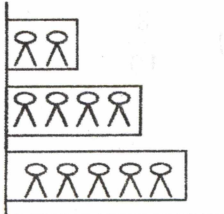


Figure 1

11. The formula for finding the perimeter for the regular pentagon in figure 1 is
- (A) $2s$ (B) $3s$
- (C) $4s$ (D) $5s$
12. Which one represents a line graph?
- (A) 
- (B) 
- (C) 
- (D) 

Use Figure 2 below to answer question 13.

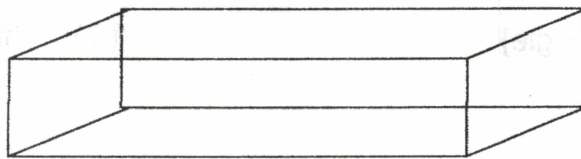


Figure 2

13. How many edges are in the cuboid above?
- (A) 4 (B) 8
(C) 12 (D) 16
14. One **million** five **hundred** thousand two can be written as
- (A) 15 500 002 (B) 1 502 000
(C) 1 500 020 (D) 1 500 002
15. $32.28 \div 100$ is
- (A) 0.3228 (B) 3.228
(C) 32.28 (D) 322.8
16. Which of the following is equal to 90 450?
- (A) $900 + 400 + 50$ (B) $9000 + 400 + 50$
(C) $90\ 000 + 400 + 50$ (D) $90\ 000 + 4000 + 50$
17. $\frac{2}{3} \times \frac{4}{7} =$
- (A) $\frac{6}{10}$ (B) $\frac{18}{14}$
(C) $\frac{8}{10}$ (D) $\frac{8}{21}$

Study the Venn diagram in Figure 4, then answer question 23.

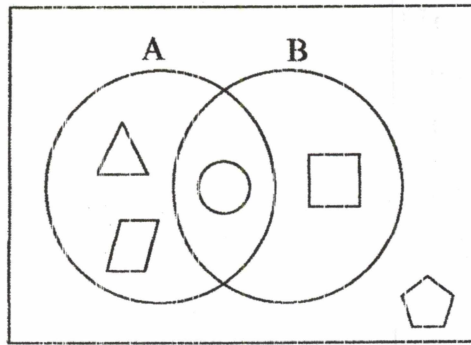
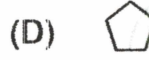
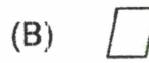


Figure 4

23. Which element is in neither A nor B?



24. 425% expressed as a decimal is

(A) 4.25

(B) 42.5

(C) 425

(D) 0.425

Use the pictograph for Questions 25 and 26.

Number of Books Read	
Mystery	
Biography	
Animal Stories	
History	

Each stands for 5 books.

25. How many more mysteries than animal stories were read?

(A) 2

(B) 5

(C) 10

(D) 15

26. How many more history books need to be read to equal the number of biographies read?
- (A) 5 (B) 10
(C) 20 (D) 25
27. Look at the number pattern below. What is the next number likely to be?
72, 63, 54, 45, _____
- (A) 36 (B) 27
(C) 18 (D) 9
28. Roy arrived at school sports at 10:30 hours and spent 3 hours 45 minutes. At what time did he leave?
- (A) 14:45 hours (B) 14:15 hours
(C) 10:45 hours (D) 10:30 hours
29. The smallest number that can be divided by 6, 9 and 12 and leaving a remainder of 1 is
- (A) 28. (B) 36.
(C) 73. (D) 145.

Use Figure 5 below to answer question 30.

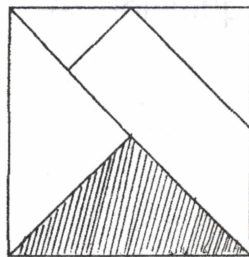


Figure 5

30. What fraction of the whole shape in Figure 5 is shaded?
- (A) $\frac{1}{16}$ (B) $\frac{1}{8}$
(C) $\frac{1}{4}$ (D) $\frac{1}{2}$

31. The volume of a box = area of base \times height.
If the volume of a box is 400 cm^3 and the area of the base is 40 cm^2 , what is the height in cm of the box?

- (A) 10
- (B) 40
- (C) 400
- (D) 16 000

32. If 900 is increased by 30%, then the new number would be

- (A) 270
- (B) 630
- (C) 1170
- (D) 90 030

Use the diagram below to answer question 33.

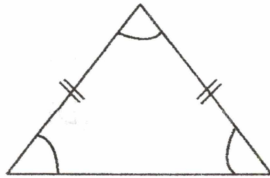


Figure 6

33. In the isosceles triangle above, the base angles are 72° each. What is the size of the third angle?

- (A) 36°
- (B) 72°
- (C) 144°
- (D) 180°

Use Figure 7 below to answer question 34.

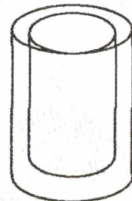


Figure 7

34. The diagram in Figure 7 represents a piece of pipe. The radius of the outer circle of the pipe is 10.5 cm and the radius of the inner circle is 5.4 cm . What is the thickness of the pipe?

- (A) 4.1 cm
- (B) 5.1 cm
- (C) 15.4 cm
- (D) 15.9 cm

Use the Venn diagram in Figure 8 to answer questions 35 and 36.

In the Venn diagram below:

Set A has 15 girls with long hair

Set B has 18 girls with blue ribbon

6 girls have neither long hair nor blue ribbon

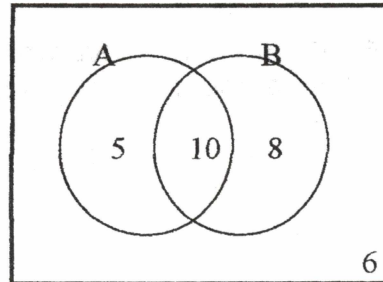


Figure 8

35. Set A intersect set B can be described as all girls with
- (A) neither long hair nor blue ribbons.
 - (B) long hair and blue ribbons.
 - (C) with ribbons.
 - (D) long hair.
36. How many girls have neither long hair nor blue ribbon?
- (A) 10
 - (B) 8
 - (C) 6
 - (D) 5
37. Lisa shared 120 stickers with her two sisters in the ratio 4:3:1. How many stickers make up the largest share?
- (A) 128
 - (B) 60
 - (C) 45
 - (D) 15

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**MATHEMATICS
PAPER II**

Reading Time: 10 minutes

Writing Time: 45 minutes

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

1. **WRITE YOUR CANDIDATE NUMBER CLEARLY ON EACH PAGE.**

2. This paper contains **SIX** questions. You are required to answer **QUESTION ONE** and **THREE** others. **EACH** question is worth **5** marks.

Be sure to answer **FULLY** the **FOUR** questions.

3. Write your answer in the space provided in the booklet.

4. Drawings and handwriting **MUST** be clear at **ALL TIMES**.

5. Each step of your work **MUST** be **CLEARLY** shown in the booklet.

6. If you have to erase, do so cleanly.

7. Look over your work when you have finished.

8. **DO NOT** take away **ANY** part of this booklet.

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

CANDIDATE NUMBER:

Question one is compulsory

1. (a) $4\frac{1}{5} + \frac{1}{3} - 1\frac{2}{6}$

(2 marks)

(b) $(7.2 + 5) \times 0.6$

(3 marks)

2. (a) After travelling 60 km, a motorist still had 50% of the journey to travel.
What was the total length of the journey?

(2 marks)

- (b) If the motorist took 3 hours for the whole journey, calculate his average speed.

(3 marks)

Use the Table below to answer question 3.

Children	Mass in kg
Sunita	50
Sean	38
Ruel	26
Jerney	40
Nancy	35

3. (a) What is the difference in mass, between Sunita and Nancy? (1 mark)

(b) Between which **two** children is there the smallest difference in mass? (1 mark)

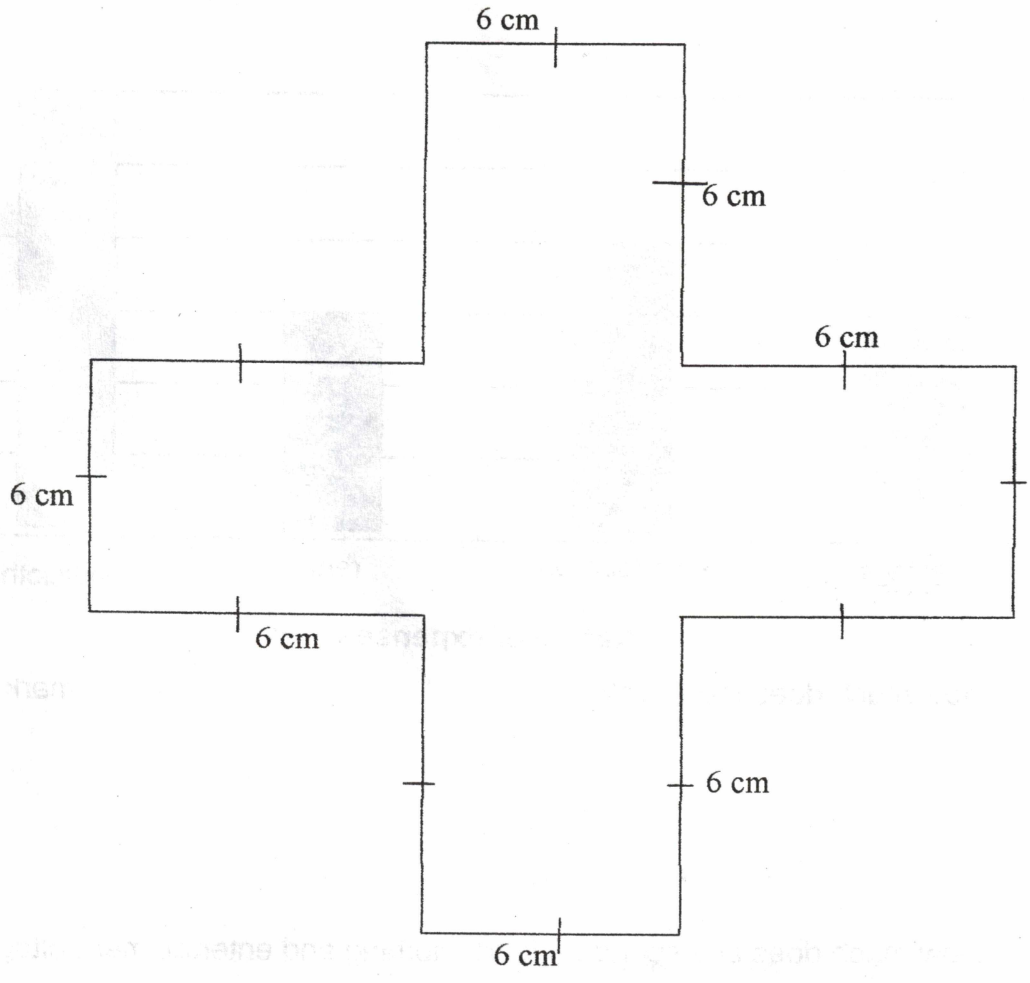
(c) Which **two** children will give a total of 85 kg? (1 mark)

(d) (i) Between which two children is there the greatest difference in mass?

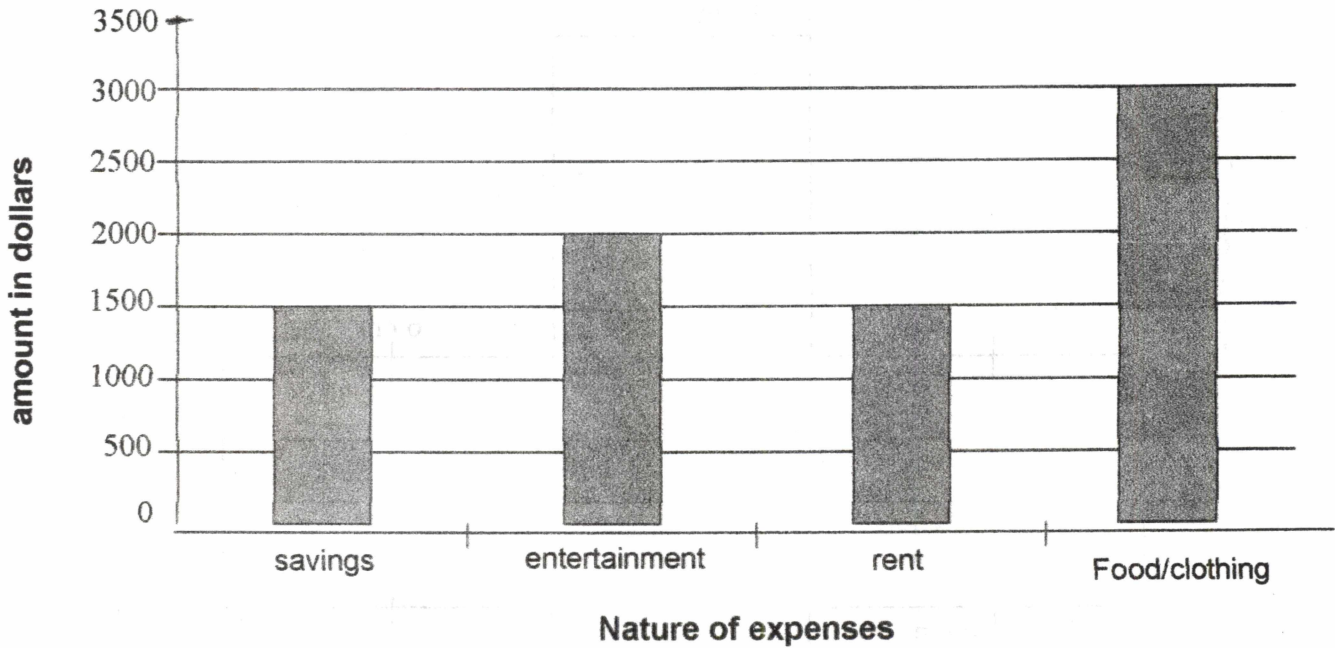
(ii) What is the difference in their mass?

(2 marks)

4. Find the area of the shape below.

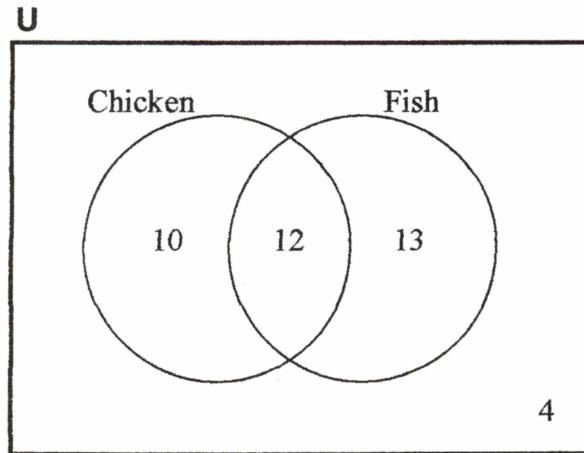


The graph below shows how Pat spends her weekly wages. Use it to answer question 5.



5. (a) How much does Pat save? (1 mark)
- (b) How much does she spend on food / clothing and entertainment altogether? (1 mark)
- (c) What is Pat's weekly wage? (1 mark)
- (d) How much would Pat earn in two weeks? (2 marks)

The Venn diagram below shows the number of pupils in Grade 6 B who like chicken and fish. Study the information then answer question 6.



6. (a) How many pupils like chicken **only**?

(1 mark)

- (b) How many pupils like **both** chicken and fish?

(1 mark)

- (c) How many pupils like **neither** chicken **nor** fish?

(1 mark)

- (d) How many children are in Grade 6B?

(2 marks)

END OF TEST