**GUYANA
MINISTRY OF EDUCATION
NATIONAL GRADE SIX ASSESSMENT**

MATHEMATICS

Paper 01

(APRIL 18, 2019 (a.m.))

1 hour and 10 minutes

READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

1. This test has 40 questions. You have 1 hour and 10 minutes to answer them.

2. Each question has **four** suggested answers: (A), (B), (C) and (D). Read each question carefully, then choose the correct answer.

3. On your answer sheet, find the number that matches the question you intend to answer.

4. Shade the circle with the letter, (A), (B), (C) or (D), that matches your answer for each question.

<u>Sample Question</u>

The sum of 4 and 5 is

<u>Sample Answer</u>

(A)   1
(B)   9
(C)   20
(D)   45

(A) ● (C) (D)

The correct answer is "9", so (B) has been shaded.

5. If you want to change your answer, erase it completely before you fill in your new choice.

6. When the supervisor tells you to begin, turn the page and work as quickly and as carefully as you can.

7. If you try a question and find that you cannot answer it, go on to the next one. You may return to that question later.

8. You must **not** use calculators for this test. Rough work may be done in this booklet.

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

Question 1 refers to the following Venn diagram which shows Sets **X** and **Y**.
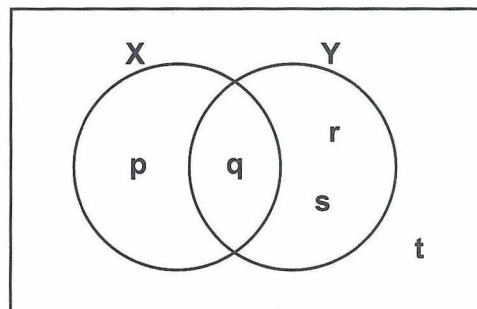
1.   How many elements are in Set **Y**?

(A)   1
(B)   2
(C)   3
(D)   5

Question 2 refers to the following set of numbers.

{27,   83,   75,   56,   99}

2.   Which **group** of numbers from the set above is divisible by 3?

(A)   27, 83 and 99
(B)   27, 75 and 99
(C)   56, 75 and 83
(D)   56, 83 and 99

3.   The lowest common multiple (LCM) of 2, 6 and 7 is

(A)   12
(B)   21
(C)   42
(D)   84

4.   In solving the problem 28 ÷ (8 + 6) – 1, which operation is performed **first**?

   (A)   Add 8 and 6.
   (B)   Divide 28 by 14.
   (C)   Subtract 1 from 2.
   (D)   Subtract 1 from 14.

5.   When 3 is subtracted from 1002 the result is

   (A)   nine hundred nine.
   (B)   nine hundred ninety.
   (C)   nine hundred nineteen.
   (D)   nine hundred ninety-nine.

6.   Which of the following fractions is equivalent to $\frac{3}{5}$?

   (A) $\frac{6}{15}$

   (B) $\frac{6}{10}$

   (C) $\frac{12}{15}$

   (D) $\frac{9}{10}$

7.   If 18.36 ÷ 100 = x, then the value of x is

   (A)   0.01836
   (B)   0.1836
   (C)   1.836
   (D)   183.6

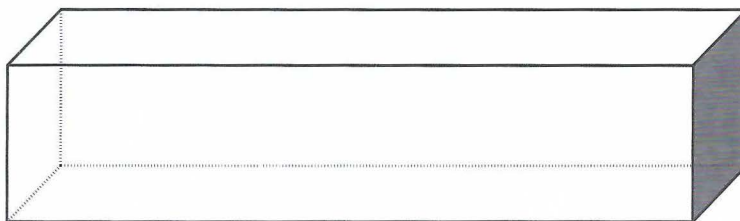8. Which of the following plane shapes has **exactly** 4 lines of symmetry?

(A)

(B)

(C)

(D)
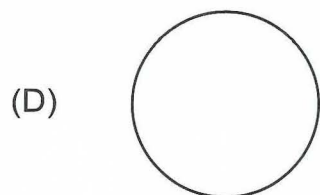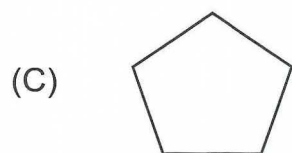
9. Which pair of lines below is parallel?
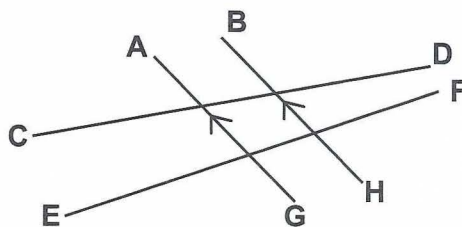
(A) AG and CD
(B) CD and EF
(C) EF and BH
(D) BH and AG

Question **10** refers to the following diagram of a solid.

10. Which group of features below clearly describes the solid?

(A)
```
4 faces
4 vertices
4 edges
```

(B)
```
6 faces
6 vertices
6 edges
```

(C)
```
5 faces
7 vertices
12 edges
```

(D)
```
6 faces
8 vertices
12 edges
```

11. Rita hires a car. She must return the car by 4 p.m. If the time at present is 3:18 p.m., how many more minutes does she have to return the car?

(A)   32
(B)   42
(C)   52
(D)   82

12. 4 kg 210 g is the same as
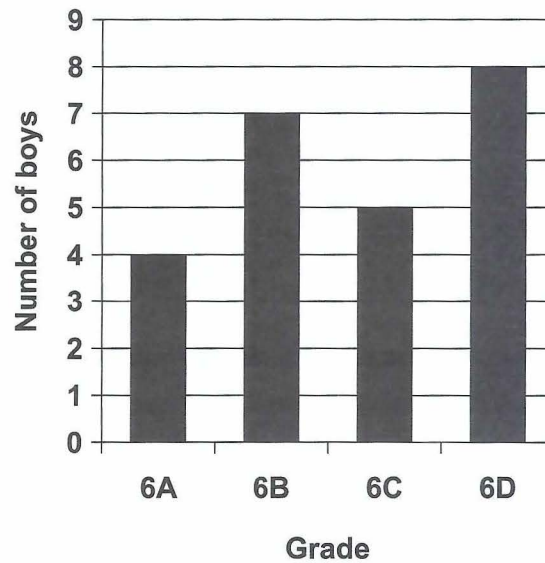
(A)   42.1 g
(B)   4 210 g
(C)   42 100 g
(D)   421 000 g

13.   What is 12% of $400?

(A) $ 8
(B) $16
(C) $40
(D) $48

Question **14** refers to the following bar graph which shows the number of boys in four Grade 6 classes.
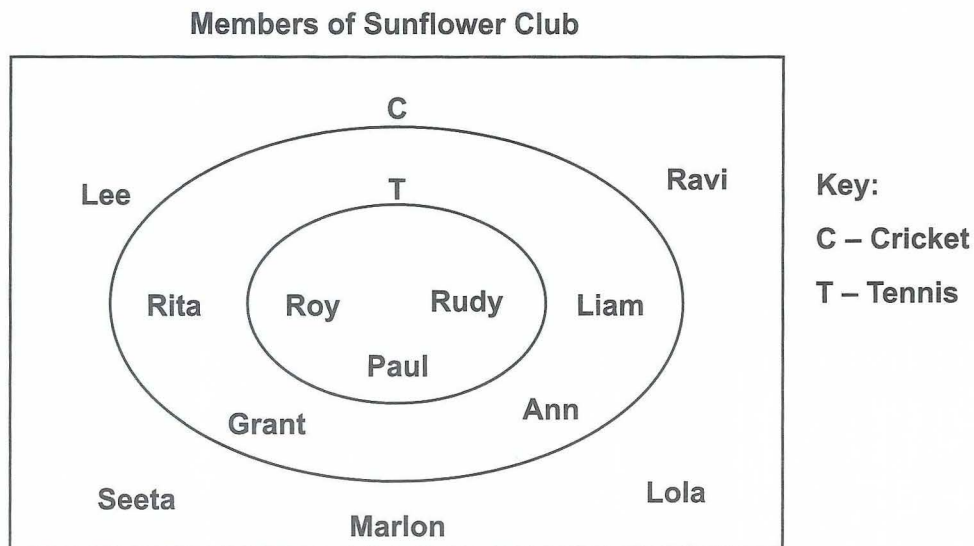

14.   How many boys are in Grade 6 **altogether**?

(A)   16
(B)   18
(C)   22
(D)   24

Question **15** refers to the following Venn diagram which shows the games that members of the Sunflower Club play.

Members of Sunflower Club

Key:

C – Cricket

T – Tennis

15. Which of the following groups of members play **both** cricket and tennis?

(A) {Roy, Rudy, Paul}
(B) {Rita, Grant, Ann, Liam}
(C) {Lee, Seeta, Marlon, Lola, Ravi}
(D) {Roy, Rudy, Paul, Rita, Grant, Ann, Liam}

16. What is the sum of the values of the **7** and the **8** in the number 374 185?

(A) 7 080
(B) 70 800
(C) 70 080
(D) 78 000

17. The number 48 written as a product of its prime factors is

(A) 2 × 2 × 12
(B) 2 × 2 × 3 × 4
(C) 2 × 2 × 2 × 6
(D) 2 × 2 × 2 × 2 × 3

18. Ricky has 36 pencils and Jason has 24 pencils. If they separate their pencils into groups of the same size, what is the **largest** number of pencils in each group?

(A) 4
(B) 6
(C) 12
(D) 24

Question **19** refers to the following table which shows a pattern of numbers.

x	4	5	6	7	8
y	13	16	19	22	_____

**19.** The missing **y**-value in the table is

(A) 3
(B) 23
(C) 24
(D) 25

20. Of the 11 295 books in a school's library, it was discovered that 2 029 were stolen. The library then received a donation of 3 075 books. How many books are now in the library?

(A) 6 191
(B) 9 266
(C) 12 341
(D) 14 370

21. What is the difference between $12\frac{1}{2}$ and $7\frac{1}{4}$?

(A) $5\frac{1}{4}$

(B) $5\frac{2}{6}$

(C) $19\frac{2}{6}$

(D) $19\frac{3}{4}$

22. A ribbon of length 23.5 cm was cut into 2 pieces. If the length of 1 piece is 1.5 cm longer than the other, what is the length of the **shorter** piece?

(A) 11.0 cm
(B) 12.5 cm
(C) 22.0 cm
(D) 25.0 cm

23. The radius of a circle is 7 cm. What is the length of the diameter, in cm?

(A) 3.5
(B) 14.0
(C) 21.0
(D) 28.0

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Question **24** refers to the following diagram which shows an isosceles triangle and a rectangle on a straight line.

Not drawn to scale
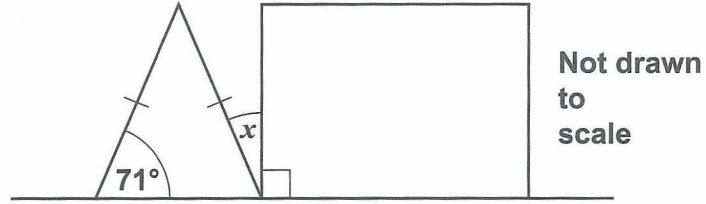
24. What is the value of angle x?

(A) 19°
(B) 38°
(C) 52°
(D) 71°

25. The width of a rectangle is 15 cm. If its length is **twice** the width, what is the perimeter of the rectangle?

(A) 30 cm
(B) 45 cm
(C) 90 cm
(D) 450 cm

26. At a bank, US$1 = GY$208. Ria exchanged US$100 for Guyanese dollars (GY). For the exchange, a fee of GY$416 was deducted. How much money in Guyanese dollars did Ria receive?

(A) $20 384
(B) $20 800
(C) $21 216
(D) $21 384

27.   Ryan received 4 books. Cathy received 2 more books than Ryan. What percentage of the total number of books did Cathy receive?

        (A)   15%
        (B)   40%
        (C)   60%
        (D)   75%

Questions **28 and 29** refer to the following diagram which shows the favourite colours of the pupils in Grade 6C.

Blue	○ ○ ○
Red	○ ○ ○ ○
Pink	○ ◖

28.   The ratio of pupils whose favourite colour is pink to the pupils whose favourite colour is blue is

        (A)   1 : 2
   (B)   2 : 1
        (C)   4 : 3
   (D)   5 : 8

29.   If 8 pupils chose red as their favourite colour, how many pupils does the symbol ◖ represent?

        (A)   1
        (B)   2
        (C)   3
        (D)   4

Question 30 refers to the following tally chart which shows the number of children who were at school last week.

Day	Tally
Monday	⊮ |||
Tuesday	||||
Wednesday	⊮ ⊮
Thursday	⊮	
Friday	||

30. Which of the following graphs correctly displays the information shown in the frequency table?

(A)

(B)

(C)

(D)
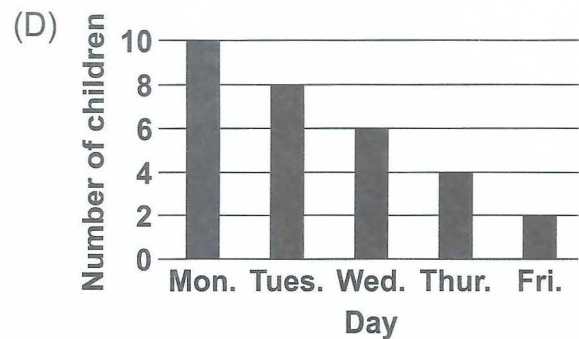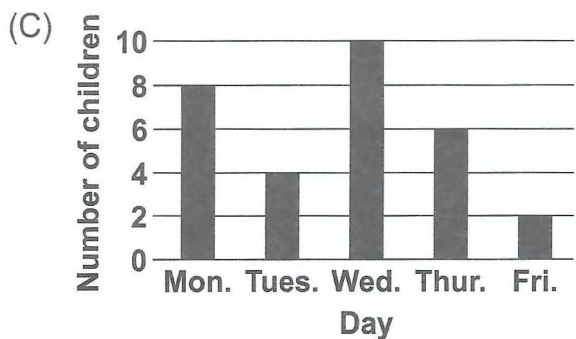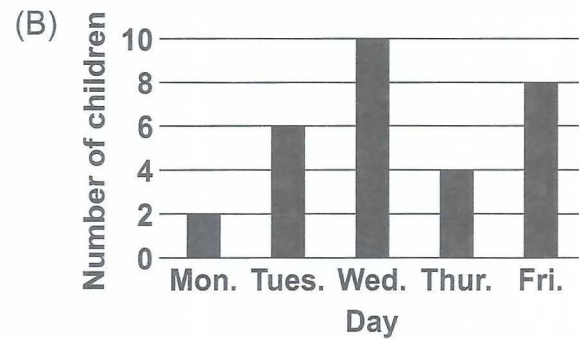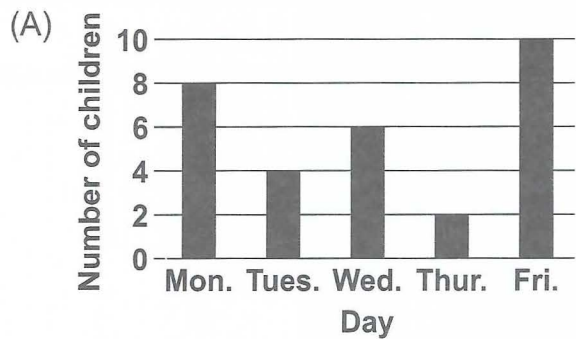
31. The 8 subsets of Set **N** are shown below.

{ } {✧} {♡} {◺} {♡ ✧ ◺} {♡ ✧} {✧ ◺} {♡ ◺}

How many elements are in Set **N**?

(A)   1
(B)   3
(C)   7
(D)   12

Question **32** refers to the following Venn diagram which shows Sets **P** and **Q**.
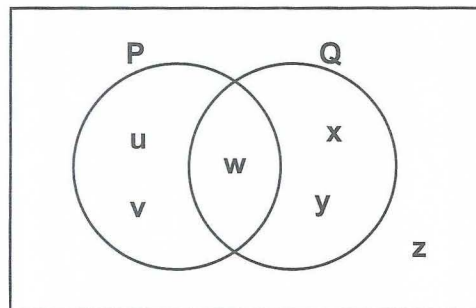
**32.** How many elements are in Set **P** but **not** Set **Q**?

(A)   1
(B)   2
(C)   3
(D)   4

33. Which of the following statements is **incorrect**?

(A) The product of 2 odd numbers is an odd number.
(B) The product of 2 even numbers is a multiple of 2.
(C) The sum of 2 even numbers is an even number.
(D) The sum of 2 odd numbers is an odd number.

Question **34** refers to the following sequence. The rule of the sequence is written above the boxes.
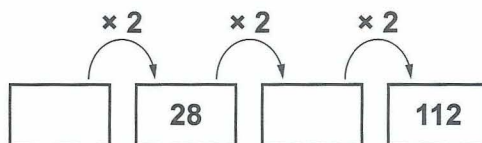
34. The two missing numbers in the sequence are

(A) 7 and 14.
(B) 14 and 56.
(C) 26 and 56.
(D) 26 and 84.

Question 35 refers to the following sequence of fractions.

$$\frac{1}{2}, \quad \frac{1}{4}, \quad \frac{1}{8}, \quad \underline{\hspace{1cm}}, \quad \underline{\hspace{1cm}}, \quad \frac{1}{64}.$$
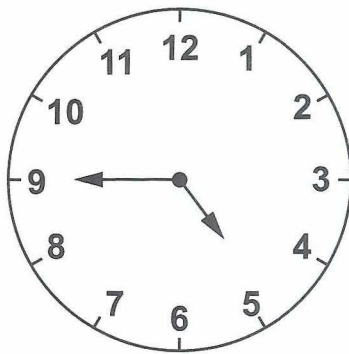
35.   The 4th and 5th terms of the sequence are

(A) $\frac{1}{10}$ and $\frac{1}{12}$

(B) $\frac{1}{12}$ and $\frac{1}{16}$

(C) $\frac{1}{16}$ and $\frac{1}{32}$

(D) $\frac{1}{14}$ and $\frac{1}{22}$

36.   A Mathematics test is scored out of 120 marks. Sam scores 60% while June scores 90 marks. What is the difference, **in percentage**, between their scores?

(A)   10%
(B)   15%
(C)   20%
(D)   30%

37. A clock shows the time below twice a day.

Which of the digital clocks below show the **two** times?
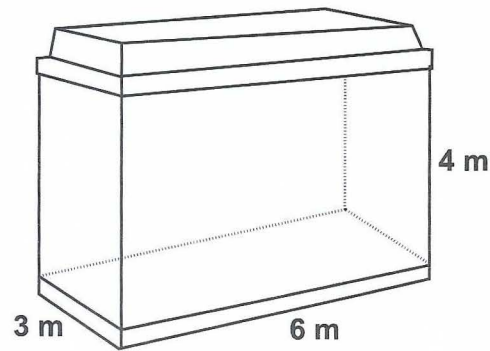
04:45	17:45	16:45	05:45
W	X	Y	Z

(A) X and Z

(B) Y and Z

(C) W and X

(D) W and Y

Question **38** refers to the following diagram which shows a water tank that measures 6 m by 4 m by 3 m.

38.   Given that 1 m³ = 1 000 litres, what is the capacity of the tank, in litres, when filled?

(A)   72
(B)   720
(C)   7 200
(D)   72 000

Question **39** refers to the following advertisement on the sale of a football.


Sale! Sale! Sale!

Was $1000

Now $750

39.   What is the percentage discount given on the football?

(A)   10%
(B)   20%
(C)   25%
(D)   30%

Question **40** refers to the following table which shows the profit made by Farmer Joe on two different crops.

Crop	Profit
Pepper	$2 000
Pumpkin	$6 000

40. Which of the pie charts below is the **most** accurate representation of the data in the table above?

(A) Pepper / Pumpkin

(B) Pepper / Pumpkin

(C) Pumpkin / Pepper

(D) Pepper / Pumpkin
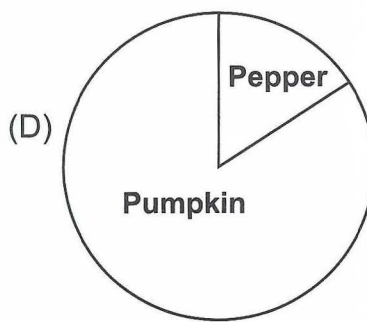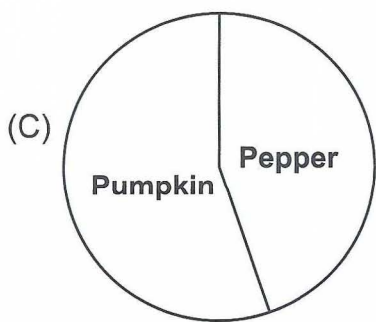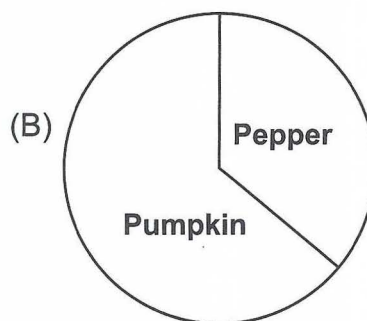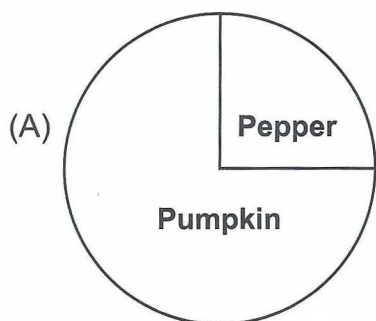
END OF TEST

IF YOU FINISH BEFORE TIME IS UP, CHECK YOUR WORK ON THIS TEST.

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