

FORM TP 2018336

GUYANA

MINISTRY OF EDUCATION

NATIONAL GRADE SIX ASSESSMENT

MATHEMATICS

Paper 01

29 MARCH 2018 (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.

Sample Question

The sum of 4 and 5 is

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

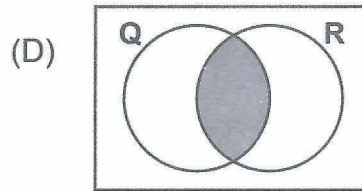
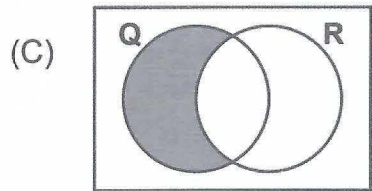
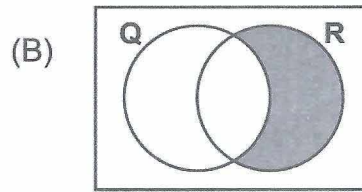
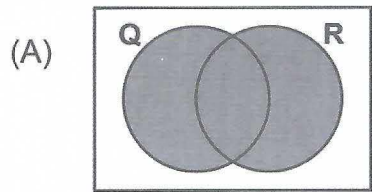
Sample Answer

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 assessment. Rough work may be done in this booklet.

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

1. In which of the following Venn diagrams does the shaded region represents $Q \cap R$?



2. The prime numbers from the set $\{41, 42, 43, 44, 45, 46\}$ are

- (A) 41 and 43.
- (B) 41 and 45.
- (C) 43 and 45.
- (D) 43 and 46.

3. Which of the following numbers is **both** a factor of 12 and a multiple of 6?

- (A) 4
- (B) 6
- (C) 18
- (D) 24

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4. $(23 \times 2) - 4 =$

- (A) 21
- (B) 26
- (C) 38
- (D) 42

5. $157.1214 \times 1000 =$

- (A) 0.1571214
- (B) 15.71214
- (C) 15712.14
- (D) 157121.4

6. The value of $38.256 - 29.039$ is

- (A) 9.237.
- (B) 9.213.
- (C) 9.217.
- (D) 9.223.

7. Which of the following fractions has the same value as $\frac{3}{7}$?

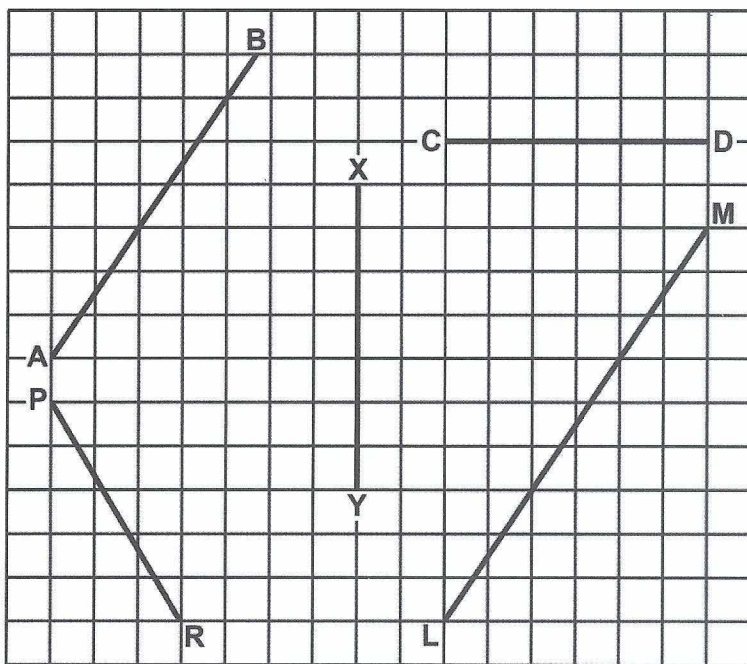
(A) $\frac{9}{49}$

(B) $\frac{10}{49}$

(C) $\frac{9}{21}$

(D) $\frac{7}{10}$

Question 8 refers to the following five line segments on the grid.



8. Which line segment is parallel to AB?

(A) PR

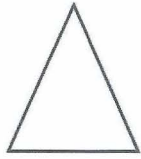
(B) XY

(C) CD

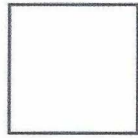
(D) LM

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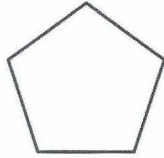
Question 9 refers to the following diagrams of four different tiles. Each of the sides of the tiles is of the **same** length.



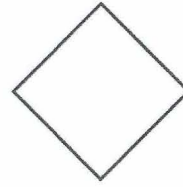
I



II



III

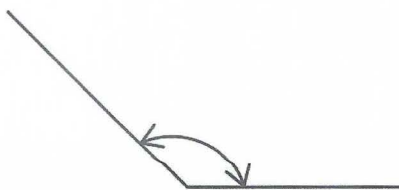


IV

9. Mary used two of the tiles to **completely** cover her rectangular tabletop. If the tiles did not overlap, which two tiles did Mary use?

- (A) I and II
- (B) I and III
- (C) II and IV
- (D) III and IV


Question 10 refers to the following angle.



10. What type of angle is represented in the diagram above?

- (A) Right
- (B) Reflex
- (C) Obtuse
- (D) Straight

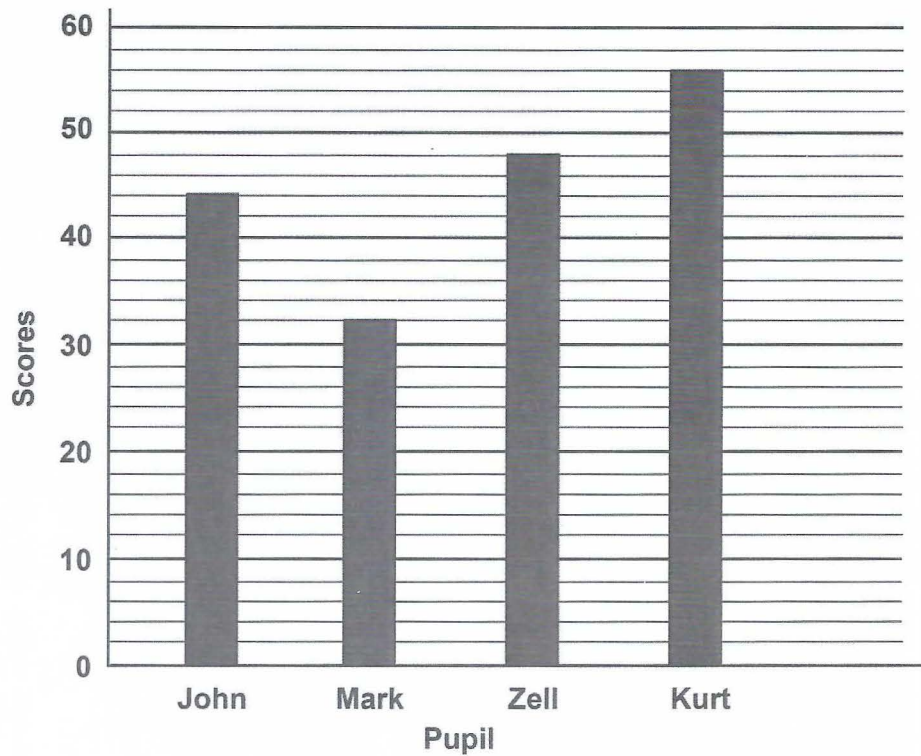
Question 11 refers to the following incomplete statement.

30 g  2 kg

11. Which of the following symbols, when placed in the circle, will make the statement true?
- (A) $<$
 - (B) $>$
 - (C) $=$
 - (D) \geq
12. The mass of an orange is equal to **twice** the mass of a pear. If the pear has a mass of 120 g, what is the mass of the orange?
- (A) 60 g
 - (B) 180 g
 - (C) 240 g
 - (D) 300 g
13. Of the pupils in Grade Six, 80% of them passed a Mathematics test. What percentage of the pupils failed the test?
- (A) 20%
 - (B) 30%
 - (C) 40%
 - (D) 60%

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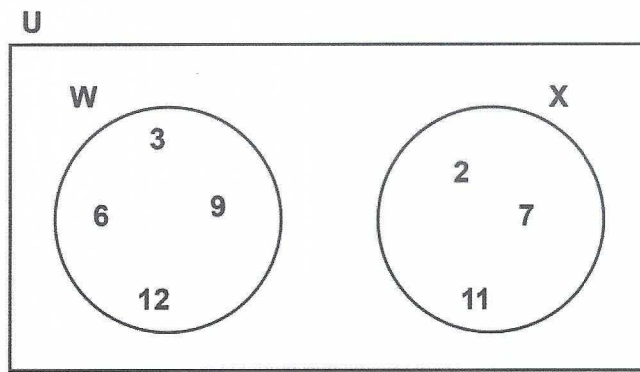
Question 14 refers to the following bar graph which shows the performance of four children on a 60-question Mathematics quiz.



14. Which child scored the **highest** mark on the Mathematics quiz?

- (A) Zell
- (B) Mark
- (C) John
- (D) Kurt

Question 15 refers to the following Venn diagram.



15. The number of elements in the set $W \cap X$ is

- (A) 0
- (B) 3
- (C) 4
- (D) 7

16. Given that $I = 1$, $X = 10$ and $L = 50$, then the value of LXI is

- (A) $50 - 10 + 1 + 1$
- (B) $50 + 10 - 1 - 1$
- (C) $50 + 10 + 1 + 1$
- (D) $50 - 10 - 1 - 1$

17. For which of the following pairs of numbers would the sum result in an odd number and the product, an even number?

- (A) 3 and 8
- (B) 4 and 6
- (C) 5 and 7
- (D) 9 and 9

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18. The difference in value between the two 6's in the number 686 745 is

- (A) 594
- (B) 5 940
- (C) 59 400
- (D) 594 000

19. What are the next **two** numbers in the sequence 1, 2, 4, 7, 11, __, __?

- (A) 13, 15
- (B) 15, 19
- (C) 16, 21
- (D) 16, 22

20. Fifteen teachers and 45 pupils visited the Zoo. The cost of one adult ticket was \$20 and the cost of a child's ticket was $\frac{1}{2}$ the adult ticket. How much did they pay **altogether** for the tickets?

- (A) \$ 30
- (B) \$ 150
- (C) \$ 750
- (D) \$1 050

21. $\frac{2}{7} \div \frac{6}{15} =$

(A) $\frac{1}{7}$

(B) $\frac{5}{7}$

(C) $\frac{11}{35}$

(D) $\frac{36}{35}$

22. A bag costs \$199.99. Sally has \$125. How much **more** money does she need to buy the bag?

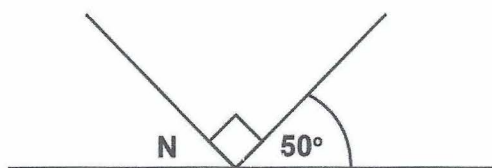
(A) \$ 74.99

(B) \$125.74

(C) \$198.74

(D) \$324.99

Question 23 refers to the following diagram.



23. The measure, in degrees, of angle N is

(A) 40

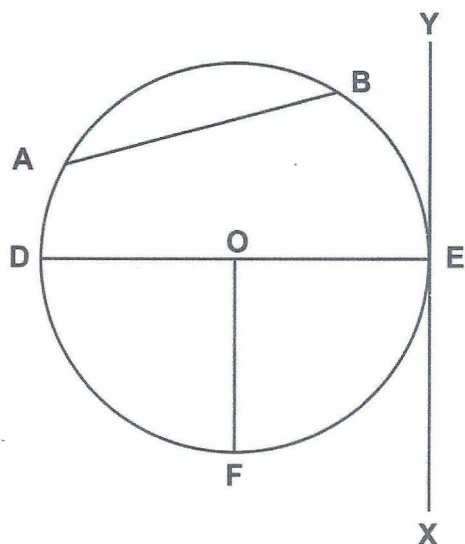
(B) 50

(C) 130

(D) 140

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Question 24 refers to the following diagram which shows the parts of a circle.



24. Which of the line segments on the diagram above represents a chord?
- (A) XY and DE
 - (B) OF and OD
 - (C) DE and OF
 - (D) AB and DE
25. Rayana left home at 16:48 hours and arrived at the stadium 40 minutes later. What time did she arrive at the stadium?
- (A) 16:08 hours
 - (B) 17:28 hours
 - (C) 17:38 hours
 - (D) 17:48 hours

26. The year 2016 was a leap year. Which of the following years were also leap years?
- (A) 2008 and 2005
 - (B) 2010 and 2014
 - (C) 2012 and 2004
 - (D) 2015 and 2013
27. The total weight of a bag and a box is 12 kilograms. If the box is 6 kilograms heavier than the bag, then the weight of the bag is
- (A) 3 kg
 - (B) 6 kg
 - (C) 9 kg
 - (D) 18 kg
28. John has 10 apples. Mark has half the number of apples as John, while Kris has thrice as many apples as Mark. How many apples do the three boys have **altogether**?
- (A) 20
 - (B) 25
 - (C) 28
 - (D) 30

Questions **29–30** refer to the following tally chart which shows the ice-cream flavours liked by a group of Grade 6 pupils.

Flavour	Tally
Chocolate	
Strawberry	
Vanilla	
Butterscotch	

29. How many **more** Grade 6 pupils like chocolate ice cream than strawberry?

- (A) 6
- (B) 8
- (C) 9
- (D) 11

30. Which flavour represents the mode of the data?

- (A) Vanilla
- (B) Chocolate
- (C) Strawberry
- (D) Butterscotch

Question 31 refers to the following sets, P, Q and R.

$P = \{\text{Natural numbers less than 5}\}$

$Q = \{\text{Letters of the word 'B O A T'}\}$

$R = \{\text{The first four whole numbers}\}$

31. Which of the following types of sets **best** describes P, Q and R?

- (A) Equal
- (B) Infinite
- (C) Equivalent
- (D) Intersecting

32. If $A = \{\text{Natural numbers less than 9}\}$, $B = \{\text{Prime numbers less than 8}\}$ and $C = \{\text{Even numbers less than 11}\}$, then which of the following statements is true?

- (A) $A \subset B$
- (B) $B \subset A$
- (C) $A \subset C$
- (D) $C \subset A$

Question 33 refers to the following equations in which the \bigcirc represents a number and \square represents another number.

$$\bigcirc \times \bigcirc = 144$$

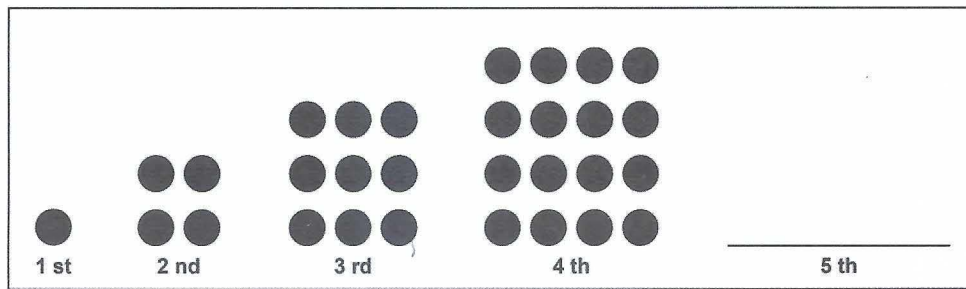
$$\bigcirc + \square = 48$$

33. The number represented by the \square is

- (A) 4
- (B) 12
- (C) 36
- (D) 60

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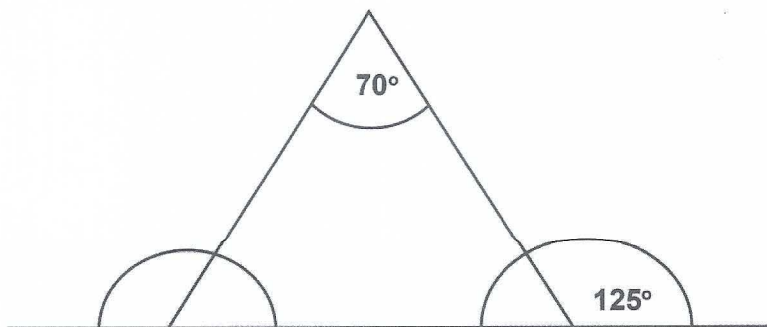
Question 34 refers to the following sequence of shapes made with black dots.



34. How many dots should be **added to the 4th term** in the sequence to obtain the 5th?

- (A) 3
- (B) 5
- (C) 9
- (D) 25

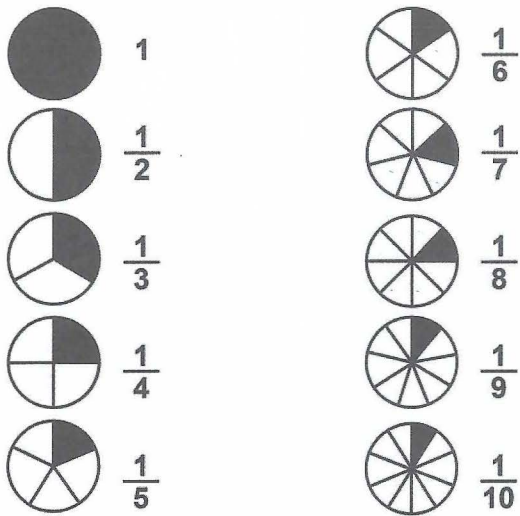
Question 35 refers to the following diagram which shows the internal and external angles of a triangle.



35. What type of triangle is shown above?

- (A) Scalene
- (B) Isosceles
- (C) Equilateral
- (D) Obtuse-angled

Question 36 refers to the following fraction chart.

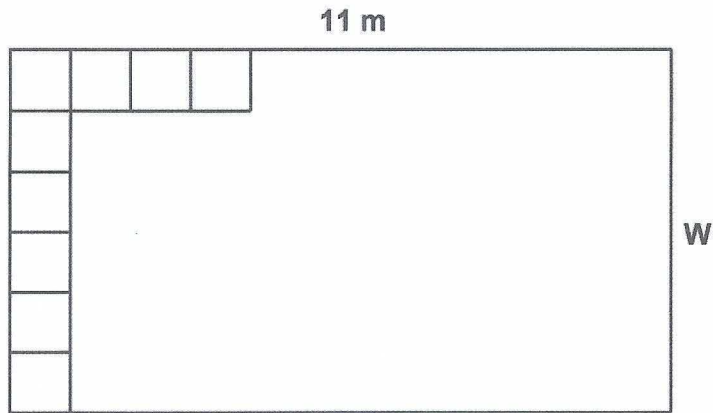


36. According to the chart above, which of the following statements is correct?

- (A) $\frac{1}{3}$ is more than $\frac{1}{2}$ but less than $\frac{1}{4}$
- (B) $\frac{1}{9}$ is more than $\frac{1}{10}$ but less than $\frac{1}{6}$
- (C) $\frac{1}{7}$ is more than $\frac{1}{8}$ but less than $\frac{1}{10}$
- (D) $\frac{1}{5}$ is more than $\frac{1}{4}$ but less than $\frac{1}{7}$

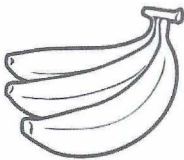
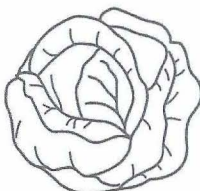
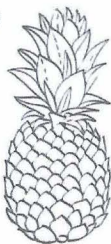
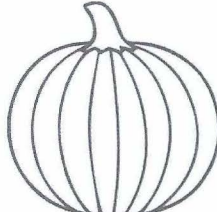
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Question 37 refers to the following diagram of a rectangular plot of land partly covered with **identical**, square seedbeds of the same size.



37. If a total of 66 seedbeds were used to completely cover the plot of land, then the width of the land, W , is
- (A) 6 m
 - (B) 11 m
 - (C) 24 m
 - (D) 36 m

Question 38 refers to the following information on the mass of four items.

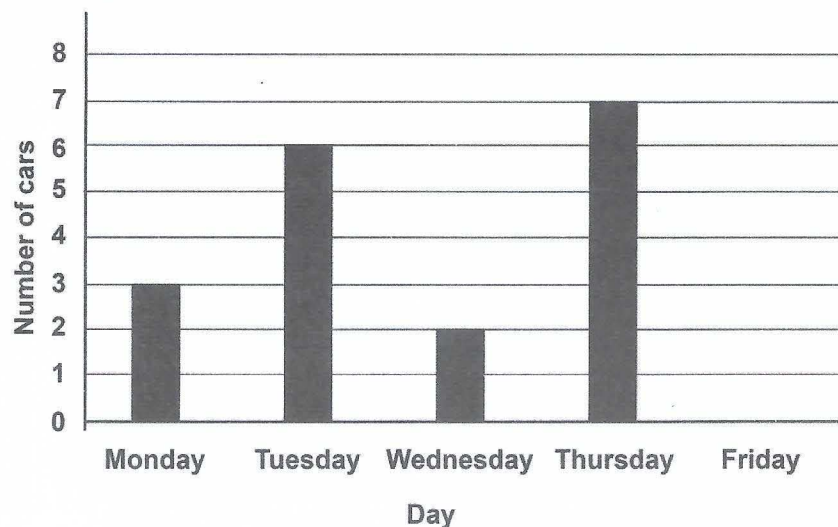
Bananas  1.9 kg	Cabbage  0.75 kg	Pineapple  2.39 kg	Pumpkin  3.61 kg
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38. Which two items have a **total** mass of 4 kg 29 grams?

- (A) Pineapple and pumpkin
- (B) Bananas and pineapple
- (C) Cabbage and pumpkin
- (D) Bananas and pumpkin

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Questions **39–40** refer to the following incomplete bar chart, which shows the number of cars arriving from Japan over a five-day period. The number of cars arriving on Friday is missing.



39. If the average number of cars arriving per day is 6, how many cars arrived on Friday?
- (A) 12
(B) 14
(C) 18
(D) 30
40. Of the total number of cars arriving over the five-day period, what percentage arrived on Tuesday?
- (A) 6%
(B) 20%
(C) 30%
(D) $33\frac{1}{3}\%$

END OF TEST

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

Prepared by

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