TEST CODE **09634010**

FORM TP 2017335

GUYANA

MINISTRY OF EDUCATION

NATIONAL GRADE SIX ASSESSMENT

MATHEMATICS

Paper 01

13 APRIL 2017 (a.m.)

1 hour and 10 minutes

READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

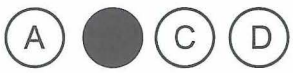
1. This test has 40 questions. You have 1 hour and 10 minutes to answer them.
2. Each question has four suggested answers: (A), (B), (C) and (D). Read each question carefully then choose the correct answer.
3. On your answer sheet, find the number that matches the question you intend to answer.
4. Shade 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

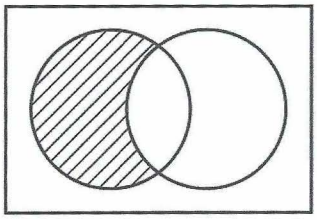
   Sample Answer

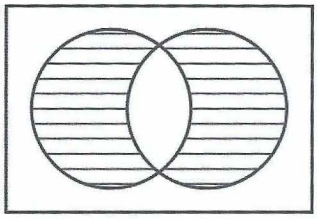
   

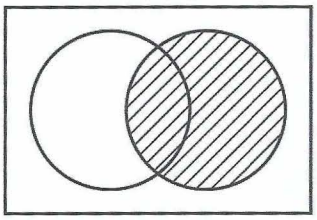
   The correct answer is "9", so (B) has been shaded.
5. If you want to change your answer, erase it completely before you fill in your new choice.
6. When the supervisor tells you to begin, turn the page and work as quickly and as carefully as you can.
7. If you try a question and find that you cannot 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.

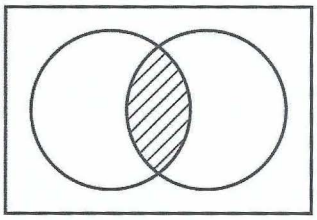
DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO.

1. Which of the shaded regions in the Venn diagrams below shows only the intersection of two sets?

(A) 

(B) 

(C) 

(D) 

2. In which of the numbers below does '5' have a place value of 'thousands'?

(A) 147 530
(B) 435 602
(C) 457 320
(D) 543 270

3. Which of the numbers below has 6 as one of its factors?

(A) 26
(B) 36
(C) 46
(D) 56

4. An aeroplane was flying at 2 550 feet when a jet passed 760 feet above it. How high, in feet, was the jet flying at that time?

(A) 760
(B) 1 790
(C) 2 310
(D) 3 310

5. 1 450 rounded to the nearest thousand is

(A) 1 000
(B) 1 400
(C) 1 460
(D) 2 000

Question **6** refers to the diagram below which shows five identical shapes.

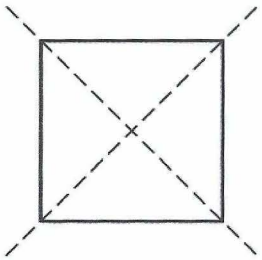
6. Which of the fractions below represents the sum of the shaded regions in the diagram?

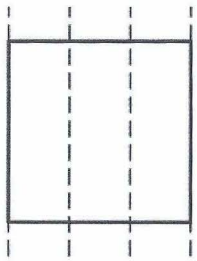
(A) $\frac{15}{20}$
(B) 3
(C) $3\frac{5}{8}$
(D) $3\frac{3}{4}$

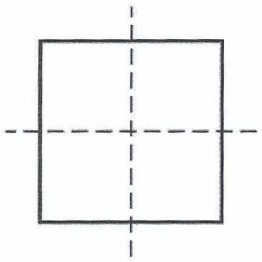
7. The fraction $\frac{4}{3}$ is **best** described as

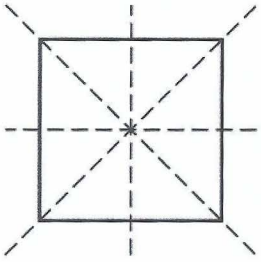
(A) an improper fraction
(B) a proper fraction
(C) a mixed number
(D) a whole number

8. Which of the diagrams below shows **all** the correct lines of symmetry on a square?

(A) 

(B) 

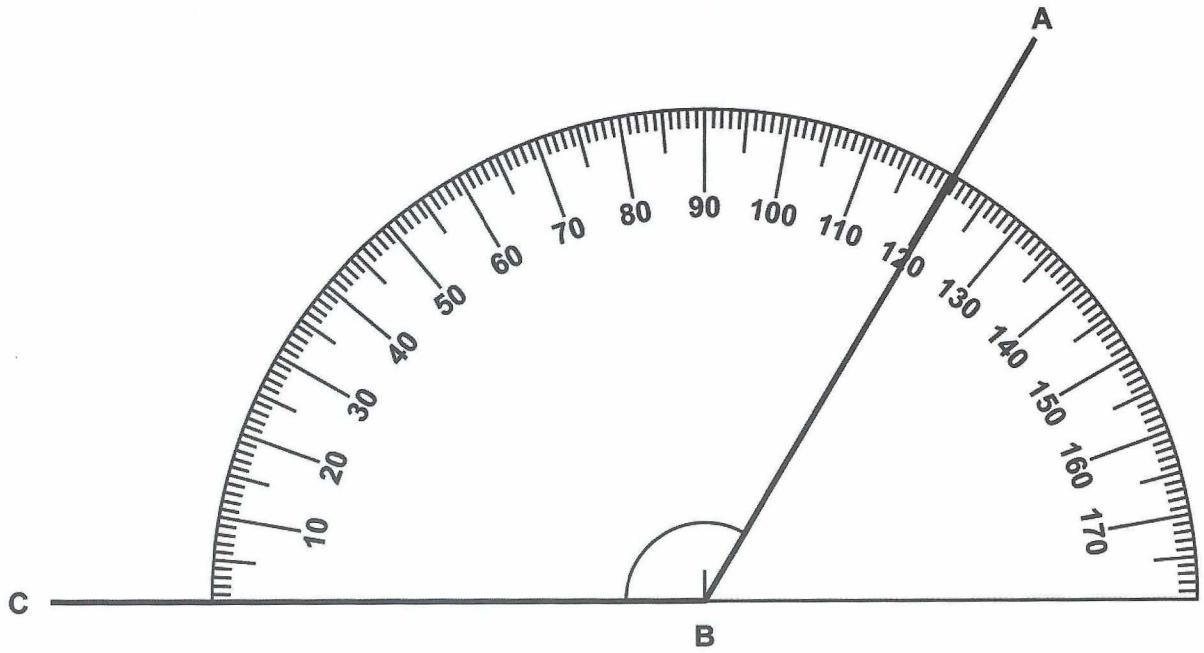
(C) 

(D) 

9. When $\frac{18}{20}$ is changed to a percentage, the result is

(A) 18%
(B) 20%
(C) 80%
(D) 90 %

Question **10** refers to the diagram below which shows the measurement of the marked angle at B.



10. The marked angle at B is

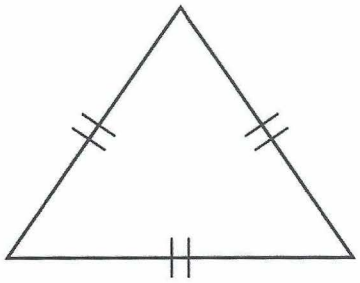
(A) an obtuse angle

(B) an acute angle

(C) a reflex angle

(D) a right angle

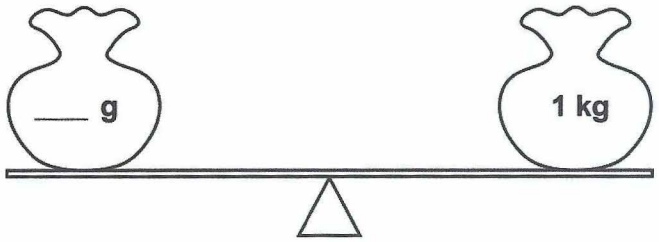
Question 11 refers to the diagram below which shows an equilateral triangle.



11. What is the size of **each** angle in the triangle?

(A) 45°
(B) 60°
(C) 90°
(D) 120°

Question 12 refers to the diagram below which shows a balanced scale.



12. What is the mass of the first bag?

(A) 10 g
(B) 100 g
(C) 1 000 g
(D) 10 000 g

Question **13** refers to the diagram below which shows a container that holds 1 litre of liquid when it is full.

13. If the container has 840 millilitres of water, how many **more** millilitres of water will be needed to fill it?

(A) 160
(B) 180
(C) 190
(D) 200

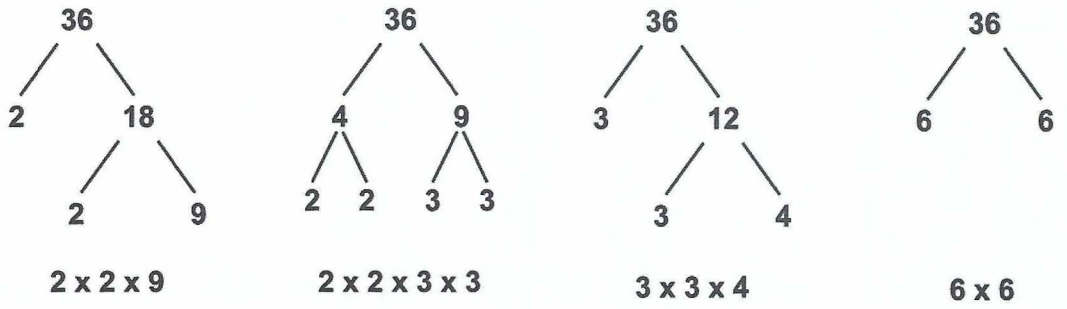
14. Which pair of sets below is equal?

(A) {1, 3, 5, 7} and {7, 5, 3,1}
(B) {7, 5, 3,1} and {2, 3, 4, 5}
(C) {1, 3, 5, 7} and {2, 4, 6, 8}
(D) {2, 4, 6, 8} and {2, 3, 4, 5}

15. Which of the numbers below represents three hundred seventy thousand, four hundred ninety-eight?

(A) 307 489
(B) 370 489
(C) 370 498
(D) 374 098

16. Which of the diagrams below represents the product of the prime factors of 36?

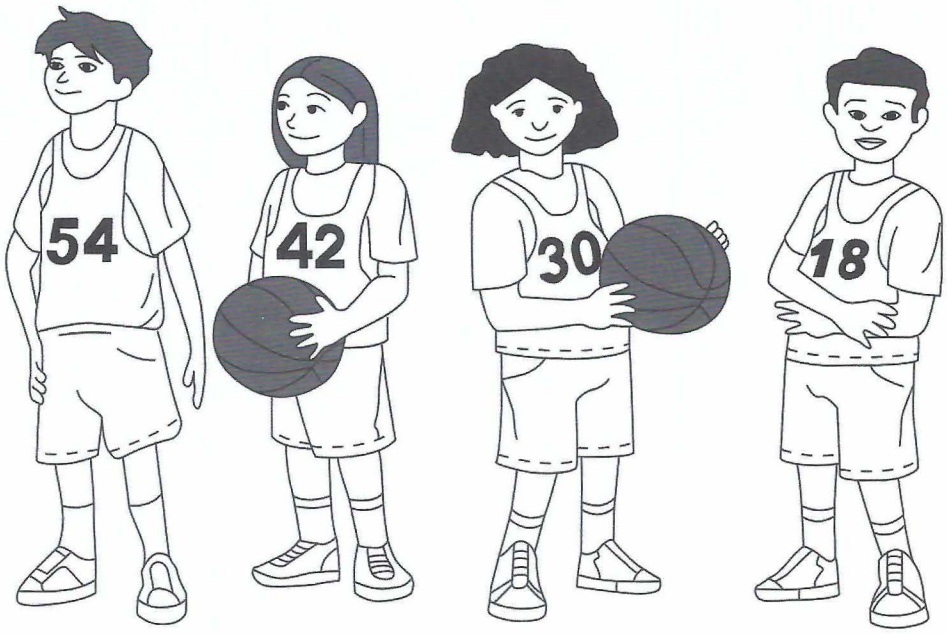


(A) (B) (C) (D)

17. $(10 \times 2) \times 4$ is the same as

(A) $2 + (10 \times 4)$
(B) $(10 \times 2) + 4$
(C) $10\ (4 + 2)$
(D) $2\ (10 \times 4)$

18. When four members of a basketball team stand in the order shown below, the numbers on the uniforms make a pattern, from **left to right**.



Which of the rules below **best** describes the pattern formed by the numbers from **left to right**?

(A) Add 12
(B) Divide by 7
(C) Subtract 12
(D) Multiply by 9

19. The missing numbers in the sequence below are

41, 43, 45, _____, _____ , 51, 53

(A) 46 and 47
(B) 46 and 50
(C) 47 and 49
(D) 48 and 49

20. The sum of 0.91, 27.1 and 1.907 is

(A) 2.9917
(B) 29.917
(C) 299.17
(D) 2 991.7

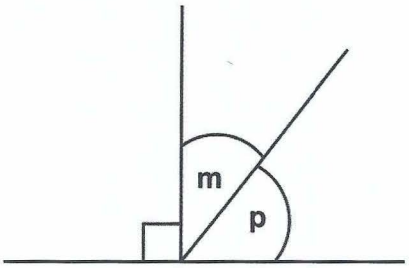
21. $\frac{9}{12} \times \frac{4}{18}$ in its simplest form is

(A) $\frac{1}{6}$
(B) $\frac{36}{216}$
(C) $\frac{13}{30}$
(D) $\frac{5}{6}$

22. Which of the solids below has 6 faces, 8 vertices and 12 edges?

(A) Cube
(B) Prism
(C) Sphere
(D) Cylinder

Question **23** refers to the diagram below which shows angles on a straight line.



23. Which of the statements below shows the relationship between the two angles, *m* and *p*?

(A) $m - p = 90^o$

(B) $90^o + m = p$

(C) $m + p = 90^o$

(D) $90^o + p = m$

24. How many millilitres of milk are contained in a five-litre bottle of milk?

(A) 5

(B) 50

(C) 500

(D) 5 000

25. If 50% of a case of orange juice is 15 tins, a full case of orange juice is

(A) 15 tins

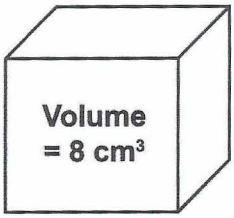
(B) 30 tins

(C) 35 tins

(D) 65 tins

26. How many of Cube A, as shown below, are needed to **fully** pack a box with dimensions 8 cm × 6 cm × 10 cm?

A



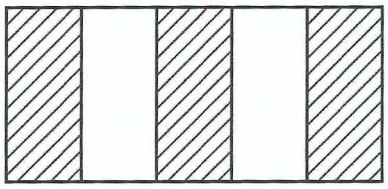
(A) 3

(B) 8

(C) 24

(D) 60

Question **27** refers to the rectangle below which is divided into 5 equal parts.



27. What percentage of the diagram above is shaded?

(A) 30%

(B) 40%

(C) 60%

(D) 80%

28. Given that B = {even numbers from 3 to 10}.
Which of the statements below is correct?

(A) $\{2\} \subset B$
(B) $\{5\} \subset B$
(C) $\{6\} \subset B$
(D) $\{9\} \subset B$

29. Which of the following pairs of sets below are equivalent?

(A) {Even numbers between 8 and 20} and {Odd numbers between 9 and 20}
(B) {Odd numbers between 9 and 20} and {Composite numbers from 10 to 20}
(C) {Odd numbers between 9 and 20} and {Prime numbers between 10 and 20}
(D) {Composite numbers from 10 to 20} and {Prime numbers between 10 and 20}

30. Which of the number statements below is correct?

(A) $20 - 10 = 10 - 20$
(B) $20 + 20 < 20 + 10$
(C) $20 - 10 > 10 + 20$
(D) $10 \times 20 = 20 \times 10$

31. Two hundred twenty-five dancers were divided equally into four groups, R, Y, O and G, except for Group R, which had an extra member. How many dancers were in Group R?

(A) 56
(B) 57
(C) 58
(D) 64

32. What number completes the number pattern below?

$1\frac{1}{7}, 2\frac{3}{7}, \_\_\_\_\_, 5$

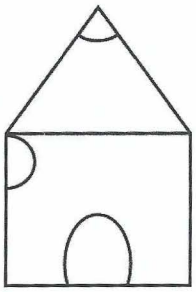
(A) $1\frac{2}{7}$

(B) $2\frac{2}{7}$

(C) $3\frac{5}{7}$

(D) $4\frac{5}{7}$

Question **33** refers to the diagram below which shows a closed shape.



33. Which of the statements below are **true** about the diagram?

I. It has 3 curves and 6 straight lines.

II. The number of curves is 2 times the number of straight lines.

III. The number of straight lines is 2 times the number of curves.

(A) I and II only

(B) I and III only

(C) II and III only

(D) I, II and III

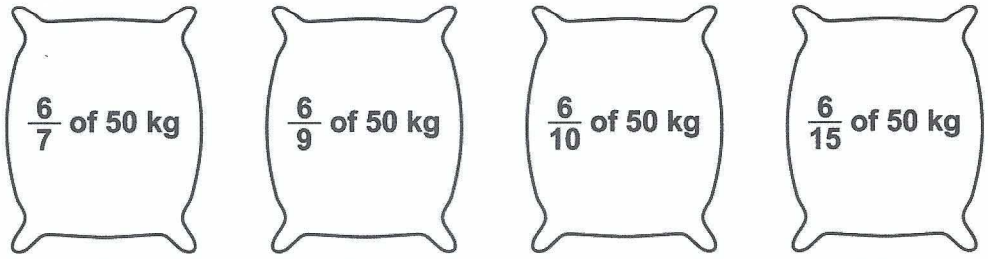
Questions **34** refers to the table below which shows the time taken by 4 athletes to complete a race.

Name of Athlete	Time Taken
Marvin	138 seconds
Benny	$\frac{3}{5}$ minute
Xing	$1\frac{3}{4}$ minutes
Jeffrey	140 seconds

34. Who won the race?

(A) Xing
(B) Benny
(C) Marvin
(D) Jeffrey

35. Which of the bags below has the **greatest** mass?

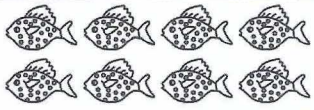
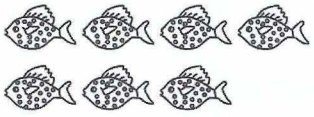


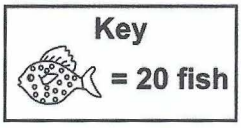
(A) (B) (C) (D)

36. A piece of wire of length 140 cm, was cut into 2 pieces in the ratio 8:6. The shorter piece was bent to form a square. What is the length of the square?

(A) 8 cm
(B) 14 cm
(C) 15 cm
(D) 60 cm

Questions **37–39** refer to the pictograph below which shows the number of fish caught by four fishermen.

Fisherman	Fish caught	Total number of fish
Peter		
Paul		
Simon		
Tommy		
	TOTAL	500



37. How many symbols should be drawn on the pictograph to represent Simon's catch, if the four fishermen caught 500 fish **altogether**?

(A) 6
(B) 10
(C) 12
(D) 120

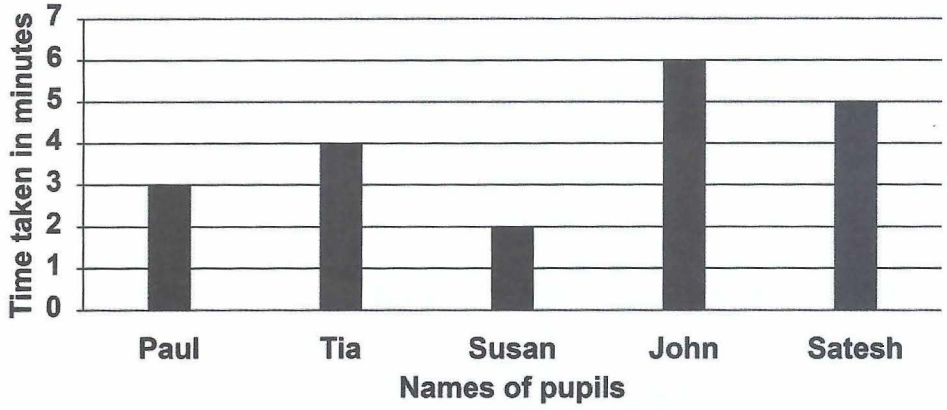
38. Which fisherman caught the **least** number of fish?

(A) Tommy
(B) Simon
(C) Peter
(D) Paul

39. Which of the statements below about the number of fish caught by Peter and Paul is correct?

(A) Peter caught 4 more fish than Paul.
(B) Peter caught half as many fish as Paul.
(C) Peter caught two times as many fish as Paul.
(D) Both Peter and Paul caught the same number of fish.

Question **40** refers to the graph below which shows the time, in minutes, that five pupils take to complete a math problem.



40. Which pupils took **more** than the average time taken by all the pupils to complete the problem?

(A) Paul and Tia

(B) John and Satesh

(C) Tia, John and Satesh

(D) Paul, Tia and Susan

END OF TEST

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

DO NOT
WRITE ON
THIS PAGE

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