

The University of the West Indies
The 2019 Junior Mathematical Olympiad

FIRST ROUND EXAMINATION, GRADE 4
WEDNESDAY, FEBRUARY 20, 2019

This examination consists of fifteen multiple-choice questions. For each one, decide whether (a), (b), (c), (d), or (e) is the best response. Then fill in the circle for that letter on the answer sheet provided. Each question is worth 5 marks.

1) What is the value of $\frac{16 + 8}{4 - 2}$?

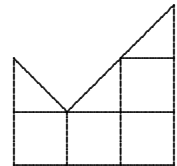
- (a) 4 (b) 8 (c) 12 (d) 16 (e) 20

2) What is the value of $(1 + 11 + 21 + 31 + 41) + (9 + 19 + 29 + 39 + 49)$?

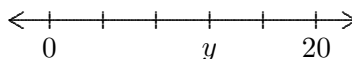
- (a) 150 (b) 199 (c) 200 (d) 249 (e) 250

3) The figure on the right is made from four small squares and three equal triangles. If each small square has area 10, what is the area of the figure?

- (a) 40 (b) 45 (c) 50 (d) 55 (e) 60



4) If the markings on the number line below are equally spaced, what is the value of y ?



- (a) 12 (b) 3 (c) 15 (d) 10 (e) 16

5) If $991 + 993 + 995 + 997 + 999 = 5000 - N$, what is the value of N ?

- (a) 5 (b) 10 (c) 15 (d) 20 (e) 25

6) Mikhail has \$10,000.00 in \$50.00 bills. How many \$50.00 bills does he have?

- (a) 1000 (b) 200 (c) 1250 (d) 500 (e) 2000

7) Two squares, each with an area of 25 cm^2 , are placed side-by-side to form a rectangle. What is the perimeter of this rectangle?

- (a) 30 cm (b) 25 cm (c) 50 cm (d) 20 cm (e) 15 cm

8) What is the difference between the smallest five-digit number and the largest four-digit number?

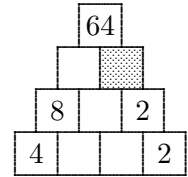
- (a) 1 (b) 10 (c) 1111 (d) 9000 (e) 9900

9) Ricky chooses a two-digit number, subtracts it from 200, and doubles the result. What is the largest number he can get this way?

- (a) 200 (b) 202 (c) 220 (d) 380 (e) 398

10) Monica wrote numbers in the figure in such a way that each number was the product of the two numbers just below it. Which number did she put in the shaded square?

- (a) 1 (b) 2 (c) 4 (d) 8 (e) 16

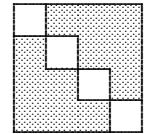


11) Julie is preparing a speech for her class. It must last between one-half hour and three-quarters of an hour. The ideal rate of speech is 150 words per minute. If Julie speaks at the ideal rate, which of the following numbers of words could be an appropriate length for her speech?

- (a) 2250 (b) 3000 (c) 4200 (d) 4350 (e) 5650

12) In figure on the right, four small equal squares have been removed from a large square. If the large square has perimeter 32, what is area of the shaded region?

- (a) 16 (b) 48 (c) 8 (d) 32 (e) 64



13) How many numbers from 1 through 46 are divisible by either 3 or 5 or both?

- (a) 18 (b) 21 (c) 24 (d) 25 (e) 27

14) There were 10 runners in the finals of a race. Luis beat 5 persons more than defeated him. In which place did Luis finish?

- (a) 1 (b) 3 (c) 4 (d) 6 (e) 7

15) A contest began at noon one day and ended 1000 minutes later. At what time did the contest end?

- (a) 10:00 pm (b) midnight (c) 2:30 am (d) 4:40 am (e) 6:40 am