

**Liberian Math Olympics: Ganta**  
**June 27, 2017**  
**Individual Round Part 2, Answer Sheet**

Name: \_\_\_\_\_

School: \_\_\_\_\_

## Instructions

Please read the following instructions carefully.

- **Write your name and school in the appropriate area of this sheet.**
- The test will be 30 minutes long and contains 10 problems.
- You will receive one point for each correct answer and zero points for each black or incorrect answer.
- Only the answers written on the this answer sheet will be scored.
- Because there is no penalty for wrong answers, you should answer each question, even if you have to write a complete guess.
- On average, you have three minutes per problem. If you're stuck on one problem, you should move on to the next one and come back later if you have time.
- Once the test starts, you may separate this answer sheet from the rest of the test.
- Good luck!

## Answers

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

## For Grader Use Only

Score	Initials

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**Individual Round Part 2**

1. What is the mean (average) of the first 10 positive *odd* integers?
2. In a right triangle, if the hypotenuse has length 10 and one of the legs has length 6, what is the length of the other leg?
3. What is the lowest common multiple of 1, 2, 3, 4, 5, and 6?
4. A turtle and a squirrel run a 10 mile race. They start at the same time. The turtle crawls at 1 mile per hour and the squirrel runs at 5 miles per hour. How far is the turtle from the finish line when the squirrel finishes?
5. A regular polygon has angles that all measure  $150^\circ$ . How many sides does it have?
6. What is the area of a triangle whose vertices lie at the points  $(0, 0)$ ,  $(3, 2)$ , and  $(3, 7)$  in the coordinate plane?
7. The distance from Harbel to Ganta is 240 kilometers. If Mohammed drives from Harbel to the center (halfway point) at 30 kilometers per hour, and then drives from the center to Ganta at 60 kilometers per hour, what is his average speed in kilometers per hour?
8. There are 300 students in a school. 170 have taken physics. 210 have taken chemistry. 30 have taken neither physics nor chemistry. How many have taken both physics and chemistry?
9. A cylindrical can has a radius of 6 inches, a height of 10 inches, and no top. What is its surface area?
10. You have a standard deck of cards (13 different types of cards, 4 of each type). If you pick out two cards at random, what is the probability that the two cards have the same type?