The Williston Northampton School Math Team
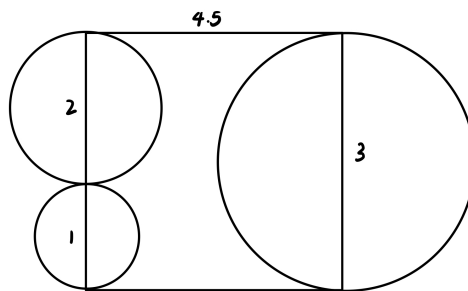
Submit your answers by May 6th, 2022 at www.wbgmc.org.

Answers must be exact or in terms of π. Answers can be written in decimal or fraction form. Each question is worth one point. Students have 30 minutes to complete all questions. Calculators are allowed.

To be eligible to compete in the WBGMC, students must meet all of the following criteria:

a) Have a passion for problem-solving!

b) Be female or non-binary in gender identity.

c) Be in grade 9 or below OR under 15.5 years of age on May 6th, 2022.

1 Questions

1. At a bake sale, I sold 3-dollar brownies, 2-dollar cookies and 1-dollar munchkins. I sold twice as many cookies as brownies and 50 products in total. If I earned a total of 86 dollars in revenue, how many munchkins did I sell?

2. What is the number which, if divided by itself, is 2022 times itself?

3. What is the number whose smallest two divisors have a sum of 14?

4. Annie draws a circle of radius 10 and a circle of radius 20 that do not intersect. She then draws all the lines tangent to both circles. How many tangent lines did she draw?

5. How many integers not exceeding 2021 are multiples of both 3 and 5 but not 7?

6. Sophia sums up the degrees of the interior angles of a regular polygon and arrives at a sum of 10,266 degrees. She then discovers that she forgot to include an angle. How many sides does the polygon have?

7. I have a 4.5×3 rectangle and three circles of diameter 1, 2 and 3. What is the area inside the rectangle but outside the circles? (Answers can be kept in π and square roots, or rounded to two decimal places.)

Submit your answers by May 6th at www.wbgmc.org. For more information about the WBGMC, please contact Josh Seamon-Ingalls, at jseamon@williston.com.