



## **GALLOP ROUND RULES**

1. The Gallop Round will consist of 24 questions to be solved in 60 minutes.
2. The questions will be divided into 8 sets of 3 questions each, and you ***must submit the answers to one set*** before accessing the problems for the next. This means you must strategize when to submit each set (incomplete or not) to ensure you get access to as many questions as possible.
3. Once you submit the answer form for one of the sets, the password for the next set will be on the form submission screen, so make sure you note it down, otherwise you may waste valuable time getting the password from us!
4. The problems will get progressively more difficult, and later problems will be worth more points.
5. Submissions will be scored immediately and a live score of all participating teams will be available during the competition. Prepare for the adrenaline rush!

# GALLOP SET 3

12 points per question

[Gallop Set 3 Answer Submission Form](#)

[Gallop Live Scores](#)

7. Evan has an even number of distinct candies. The number of ways to arrange them in a line is divisible by 1000 but not by 1020. How many candies does Evan have?
8. A Galapagos turtle fell into a hole of height 14 inches. During the daytime, it climbs up 4 inches. During the night, it may slip down 2 inches with a probability of  $\frac{1}{3}$ , or it may climb another 2 inches with a probability of  $\frac{2}{3}$ . What is the probability that the turtle escapes the hole by the end of the 3rd night?
9.  $f(x)$  and  $g(x)$  are functions representing parallel lines. Given  $f(g(2)) = 7$ ,  $g(f(2)) = 8$ , and  $f(2) - g(2) = 1/2$ , find the slope of  $f(x)$ .