A Slice of Pi

Answer the following questions using the information in the charts and graphs.

1. Which digit appears with the greatest frequency in the first 100 digits of pi?
   - A 0
   - B 3
   - C 7
   - D 9

2. How many teaspoons of cinnamon and cloves combined are in one apple pi pie?
   - A \(\frac{1}{4}\)
   - B \(1\frac{1}{2}\)
   - C \(1\frac{7}{8}\)
   - D \(1\frac{11}{12}\)

3. Brahma\'s pi approximation is a(n) __ number.
   - A rational
   - B irrational
   - C exponential
   - D negative

4. About what percent of digits in the first 100 digits of pi are multiples of 3?
   - A 34%
   - B 43%
   - C 72%
   - D 88%

5. In the current record of known decimal places of pi, what\'s the place value of the 4?
   - A Hundred millions
   - B Ten billions
   - C Ten trillions
   - D Hundred billions

6. Which mathematicians used inequalities to estimate pi?
   - A Archimedes and Zu Chongzhi
   - B Brahmagupta and Archimedes
   - C Zu Chongzhi and Leibniz
   - D Leibniz and Brahmagupta

7. What is the probability, in simplest form, that a digit picked at random from the first 100 digits of pi would be a 2?

8. Rewrite Archimedes\' pi estimation with decimals rounded to the ten thousandths.

9. How many apple pi pies could you make if you had \(\frac{3}{4}\) teaspoons of ground allspice?

10. Describe in words what pattern(s) you see in Leibniz\'s series for pi.