

DoNow practice for familiarity and speed

Name:

Work these problems rapidly in the space provided.

1. In an arithmetic sequence, the first term is 5 and the third term is 17.
 - (a) Find the common difference.
 - (b) Write down an equation for S_{10} , the sum of the first 10 terms in the sequence, substituting values for u_1 , d , and n . (you do not have to simplify the formula)
2. Given that a geometric sequence begins with $u_1 = 9$ and has a common ratio of $r = \frac{2}{3}$.
 - (a) What is the third term of the sequence?
 - (b) Write down an equation for u_{10} , the 10th term in the sequence, substituting values for u_1 , r , and n . (you do not have to simplify the formula)
 - (c) Does the sum of the infinite series have a finite value? Justify your answer in the simplest way possible. (you don't have to write any words, just a short algebraic expression)
3. Round to three significant figures unless otherwise instructed
 - (a) 45.0951
 - (b) 0.031415926
 - (c) 25.36496481 *to the nearest hundredth*
 - (d) 2.732×10^{-3}
4. Simplify the expression $\frac{x^{-1}}{x^4}$ to one with positive integer exponents and radicals.

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Probability

5. Given $P(A)$ and B, find intersection, union, operations with complements
6. Calculations given independence and mutual exclusivity, test for both
7. Venn 2- and 3-circles, with various shadings, labels and inserted values
8. Given table of values, find probabilities and contingent probabilities