

Name: _____

AFM

Spiral Review

Week of April 3

1. Bill wants to invest \$5500 into an account that earns interest compounded continuously. At what interest rate should Bill seek in order to double his amount in a 10 year time period?

2. Find the value of x : $-3e^{5x+1} - 7 = -91$

3. Identify the transformations from the parent function: $f(x) = \sqrt{-\frac{1}{4}x - 2} + 7$

4. Find the equation of the inverse function: $f(x) = 4^{x-7} + 1$

5. Given: $f(x) = -5x - x^2$ and $g(x) = -|x - 9| - 3$; Find the value of $f(g(2))$

6. A director needs to cast a lead role, supporting role, and 1 extra from a group of 21 actors and actresses attending a workshop on musicals. How many ways is this possible?

7. What is the coefficient of the third term in the expansion of: $(5x - 3y)^5$?

8. The Dahl family went to Lowe's and selected 6 new lawn statues to place in a horizontal line across the front lawn. In how many ways can this be done?

9. What type of sampling method is illustrated?

From a class of 25 students, the teacher selects the last five who enter the classroom.

10. The letters, "E", "C", "S", "H", "E", and "E" are placed into a bag and selected to spell out a six-letter word, nonsense word allowed. What is the probability of the word "CHEESE" being spelled?