Name _____

1. Radium-226 has a half-life of 1600 years. If A_0 indicates the initial amount of Radium-226 present a test object, then the amount present, $A(t)$, after t years is given by the function $A(t) = A_0 \left(\dfrac{1}{2} \right)^{\frac{t}{1600}}$.

   Express $A(t)$ in terms of the exponential function e.

2. Why is division by zero undefined?

3. How many ways can n people be arranged in a straight line? in a circle?

4. What common fraction is equal in value to $0.02\overline{45}$?

5. We can characterize behaviorism and constructivism in terms of teacher/student activity. What would these descriptions be?

6. List 5 different problem solving strategies.

7. In contrasting norm-based versus criterion-based assessment which of the two grays the meaning of letter grades. If your child receives a C or C+ it no longer means "average", but "satisfactory"?

8. What should be the primary role of the teacher in the information age classroom?

9. In Milo Frank's book " How to Get Your Point Across in 30 Seconds or Less", what are the two primary strategies that are to be used in achieving this goal?

10. What exactly does the No Child Left Behind Act provide as a possible aid to failing students?

11. Your textbook states that "cooperative learning is more than putting students into groups and giving them a task". Explain why this is **and** give an example of any strategy you would apply in setting up a cooperative learning activity.

12. List at least three forms of alternative assessment (other than tests and quizzes) that are applicable for evaluation in mathematics.

13. What is meant by the term "vertical communication"?

14. Why is $0! = 1$?

15. Solve any 2 of the following for x :

a) $\left| \dfrac{3x-2}{4} \right| \geq 5$

b) $\ln\left(\dfrac{x-3}{x+1} \right) = 1$

c) $2^{\frac{4x}{3}} = 3^{x^2}$