

Name _____

- You may work with other students in this class. However each student should write up solutions separately and independently – nobody should copy someone else's work.
- You may use your notes and text.
- No calculators are allowed.
- Show sufficient work to justify each answer.
- There is no specific time limit, but the quiz is due at the beginning of Thursday's discussion section (Friday for Merit sections).
- Note to TA's – you should not help students with these specific problems or go over solutions until the last Merit section has turned in the quiz at 11am Friday.

1. (3 points) An exponential function has a y -intercept of 4 and goes through the point (3, 8). Determine a formula for this function.

2. (2 points) Determine all values of x which satisfy the equation below.

$$\ln(x^2 - 2x - 14) = 0$$

3. (3 points) Given that $f(x) = \sqrt[3]{2 + e^{-x}}$, find a formula for $f^{-1}(x)$.

4. (2 points) Simplify the expression $\sin\left(2 \cos^{-1}(3x)\right)$ into a form which does not require trigonometric or inverse trigonometric functions.