

Name \_\_\_\_\_

- No calculators allowed.
  - Show sufficient work to justify each answer.
  - You have 12 minutes for this quiz.
1. (4 points) Determine a formula for an exponential function given that its graph goes through the points  $(-3, 80)$ ,  $(0, 20)$  and  $(3, 5)$ .

2. (3 points) Determine all values of  $x$  which satisfy the equation below.

$$e^{3 \ln (5x+8)} = 27$$

3. (3 points) Given that  $f(x) = \sqrt[5]{\ln (5x+8)}$ , find a formula for  $f^{-1}(x)$ .