

Math 1513 - College Algebra

Quiz #20 - 2011.10.27

Solutions

1. Give an example of a real world situation that can be modeled by an exponential function.

Answers will vary, but examples could be compound interest, radioactive decay and population growth.

2. If $f(x) = \sqrt[3]{2-x}$, find $f^{-1}(x)$.

Setting $y = \sqrt[3]{2-x}$ and solving for x requires cubing both sides first, $y^3 = 2-x$. Then subtracting 2 from both sides and multiplying by -1 gives $x = 2 - y^3$. Thus $f^{-1}(x) = 2 - x^3$.