

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

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