

Round to the nearest hundredth unless noted otherwise. SHOW WORK.

Solve.

1. $12^x = 1000$

2. $e^x - 11 = 72$

3. $5^{2x+1} = 62$

4. The population of a certain city has been increasing 1.2% each year. In 2010 the population was 312,500. Find the number of years, to the nearest hundredth, it will take for the population to reach 500,000.

5. The value of a piece of property has been decreasing 3.5% each year. The property was valued at \$375,000 in 2016. Find the number of years, to the nearest hundredth, until the value of the property reaches \$225,000.

6. You invest \$30,000 into an account that pays 5% interest compounded continuously. Find the number of years, to the nearest hundredth, that it will take the investment to reach \$500,000.