

Applications of Exponential Functions

$$y = a(1 + r)^t$$

$$y = a(1 - r)^t$$

1. Kaitlyn received \$1,000 for her birthday. She deposited it into an account that pays 6.5% annually. Find the balance in the account after 5 years.

2. Kaitlyn received \$1,000 for her birthday. She deposited it into an account that pays 6.5% quarterly. Find the balance in the account after 5 years.

3. The population of a city was 150,600 in 2002 and is decreasing at a rate of 1.5% per year.
What will the population be in the year 2007?