

Name: _____
Date: _____
Class: _____

Algebra
Review

The following are review problems focused on percentages:

- 1) You put \$500 into a bank account that pays 3.2% interest annually. How much will you have after 3 years?
a) 548 b) 549.55 c) 1149.48 d) 16348
- 2) You buy a new car. Every year the value decreases by 10%. How much can you theoretically sell the car for at the beginning of the 4th year if the car was \$25,000 new?
a) 36602.5 b) 18225 c) 15700 d) 16402.5
- 3) Jim uses the equation $y = 740(1.0125)^t$ to determine how much money he has in his checking account. What would be the initial amount he put into his bank account?
a) The y value b) 101.25
c) 1.25 d) 740
- 4) You buy a collector's item that was worth \$925. You find out that it is losing value at a rate of 1.75% per month. You bought this item on January 1st, how much would it be worth on June 1st?
a) 846.85 b) 861.93 c) 991.47 d) 1008.82
- 5) You are supposed to be paying a loan back to your parents for \$5000 but you have not been giving them any money for the last 3 years. They are charging you 0.9% interest per year. How much did your loan balance increase from the end of the 1st year until the end of the 3rd year?
a) 45.41 b) 90 c) 91.23 d) 5136.22
- 6) If a population of deer can be determined by the equation $y = 5000(1.055)^x$ where y is the number of deer and x is the number of years since 2009, find the difference in the population of deer in 2015 and 2012.
- 7) You are paying back a loan of \$4500 by paying back 10% per month. How much would you still owe at the beginning of the 8th month?
- 8) You place \$15,000 in an account to save for college. If this account earns 0.005% interest per month, how much would be in the account at the end of the 3rd year?
- 9) A population of bacteria is growing at a rate of 5% every six hours. What would average rate of change be between the population at the end of the 3rd hour and the end of the day in bacteria per hour if the initial amount of bacteria was 12,500?
- 10) You buy a car for \$22,500. The car depreciates at a rate of 10.75% per year if it stays in very good condition and 14% if it stays in good condition. What would the difference in value at the end of the 4th year be between good condition and very good condition?