**Name: Class: Date:**

**Chapter 6 Review Handout**

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| 1. Simplify   (-3m)2 | 1. Simplify |
| 1. Simplify | 1. Simplify |
| 1. Simplify | 1. Determine if the following is a geometric sequence. If so write an equation for the sequence and find the 12th term.   -1,6,-36,216 |
| 1. Determine if the following is a geometric sequence. If so write an equation for the sequence and find the 16th term.   4,16,36,64 | 1. Given the first term and the common ratio of a geometric sequence write an equation of the sequence and find the 8th term.   A1 = 0.8 r = 5 |
| 1. It is a busy time in the North Pole and the elves are working hard on making toys. There are 5 elves working on making toys. However, other elves help out and the amount of elves triples every 3 hours. How many elves are working on the toys after 12 hours? | |
| 1. The mall has been busy with the holidays approaching. In a typical month there are 1,359 shoppers attending the mall. However, there has been a 3.8% increase in the amount of shoppers. How many shoppers attend the mall in 2 holiday months? | |
| 1. An ice sculpture is 5 ft tall and with the warm weather we have been having the ice sculpture is decreasing in size by 0.75%. How tall is the ice sculpture after being outside for 4 hours? | |
| 1. You have $387 in your bank account and the bank has an annual interest rate of 2.75% and compounds interest quarterly. How much will you have in your bank account after 5 years? | |
| Answers: 1.) 9m2 2.) 3.) 4.) 5.) 6.) A(n) = -1(-6)n – 1 ; 362,797,056 7.) Not a geometric sequence 8.) 9.)y = 5(3)x; 405 elves 10.) y = 1359(1 + 0.038)x; 1,464 people 11.) y = 5(1 – 0.0075)x; 4.85 in 12.) ; $443.84 | |