

the car be worth in 10 years?

Alg. 1 Unit 4 Study Guide

Y

5.67

17

51

153

459

1

2

3

15) Bismuth-214 has a half-life of approximately **Find the common ratio in the table.** 

13) Distributing 214 has a half-life of approximately<br/>20 minutes. Find the amount of Bismuth-214 left<br/>from a 30-gram sample after 1 hour.1Ind the common ratio in the table.22)BounceHeight (m)23)X14002320-132560

16) Pam is investing \$1,500 at a rate of 3.5% compounded monthly. How much money will she have after 4 years?

17) A new savings account starts at \$700 at a rate of 1.2% yearly. How much money will be in the account after 8 years?

Find the next three terms in each geometric sequence.

18) 2,4,8,16, ... 19) 4,-12,36,-108, ...

Find the n<sup>th</sup> term of the geometric sequence.

20) What is the 14<sup>th</sup> term of the geometric

sequence 1000, 100, 10, 1, ...?

## Identify the transformations.

24) 
$$f(x) = -(42)^{x+3} - 4$$

25) 
$$y = \frac{1}{2}(2)^{x-1} + 7$$

26) 
$$f(x) = 2\left(\frac{7}{3}\right)^{x-3} - 1$$

21) The first term of a geometric sequence is 18 and the common ratio is 3.5. What is the 9<sup>th</sup> term of the sequence?