

**#1-4, Determine whether the sequence is arithmetic or geometric**

1. 1, 3, 9, 27, 81, ...      2. 40, 43, 46, 49, 52, ...      3. 25, 12.5, 6.25, 3.125, ...      4. 6.8, 7.1, 7.4, 7.7, ...

**#5-8, Write the next two terms in the sequence.**

5. -34, -26, -18, -10, -2, ...      6. 5.5, 6.25, 7, 7.75, ...  
7. 320, 80, 20, 5, ...      8. -4, 12, -36, 108, -324, ...

**#9-12, Given the first term and the common difference (d) or the common ratio (r), of a sequence, write the first five terms of the sequence.**

9.  $a_1 = -4, r = 6$       10.  $a_1 = 12, d = -7$

11.  $a_1 = -25, d = 7$       12.  $a_1 = 100, r = \frac{1}{2}$

**#13-14, Given the recursive formula for a sequence, find the first 4 terms.**

13.  $a_n = a_{n-1} \cdot 2$   
 $a_1 = 2$

14.  $a_n = a_{n-1} - 5$   
 $a_1 = 73$

#15-16, The 1<sup>st</sup> and 5<sup>th</sup> term of a sequence are given. Fill in the missing numbers for each type of sequence.

15.

<b>arithmetic</b>	<b>4</b>					<b>324</b>
<b>geometric</b>	<b>4</b>					<b>324</b>

16.

<b>arithmetic</b>	<b>3</b>					<b>48</b>
<b>geometric</b>	<b>3</b>					<b>48</b>

#17-19, Determine if the situation represent an arithmetic or geometric relationship.

17. Pam is trying to score better on her math tests. She has made a goal to improve her percent score 3 points each successive test or quiz.

18. Anne decided to add running to her exercise routine. She will run 1 mile each day this week and then double the number of miles each new week.

19. Laura invests \$6,000 in an account that earns 4% interest each year.