

**I. Complete the chart below. Must show work for credit!**

Given Sequence	Determine If Geometric	Common Ratio $r$	Next Three Terms
1.) 6 , 12 , 24 , 72 , ...			
2.) 18 , - 54 , 162 , ...			
3.) 256 , 128 , 64 , 32 , ...			
4.) $7, -\frac{14}{3}, \frac{28}{9}, -\frac{56}{27}, \dots$			

**II. Find the indicated term of each geometric sequence. Must show work for credit!**

5.) $a_1 = 5$ and $r = 2$ ; find the 6 <sup>th</sup> term	6.) $a_1 = 53,248$ and $r = -\frac{1}{4}$ ; find the 10 <sup>th</sup> term	7.) Find $a_8$ for sequence - 12 , - 6 , - 3 , ...	8.) Find $a_7$ for sequence 20 , 180 , 1620 , ...
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**III. Considering all given sequences are geometric – Find what is asked. SHOW WORK!!!**

9.) The 10 <sup>th</sup> term of the sequence is - 50,388,480 and the common ratio is 6. What is the first term?	10.) What is the common ratio for the sequence where the first term is 78 and the 7 <sup>th</sup> term is 1.21875?	11.) Which term of the sequence 2 , 14 , 98 , ... is 4,802?
12.) The fourth term is 16 and the eighth term is 1. What is value of $r$ ?	13.) The first term is 2 and the second term is 10. Is 781,250 a term of the given sequence?	14.) The fifth term is - 98,304 and the third term is - 1,536. What is the $n$ th term?
15.) The sixth term is 3 and the common ratio is 2. What is $a_{12}$ ?	16.) What are the four geometric means between 1 and 7,776?	17.) The ninth term is 32,805 and the twelfth term is 885,735. What is the eighteenth term?
18.) What are the three geometric means between 4 and 64?	19.) If $a_1 = - 4$ and $r = 3.2$ , then is - 0.038147 a part of the sequence?	20.) The eighth term is 49,152 and the first term is 3. What is the seventh term?