Name_____ Period____

11-4 Day 2 Homework

1. Find the two geometric means between 4 and 32.

   [A] 8, 16 [B] 12, 36 [C] 4, 4 [D] 8, 32

   [1] _____

2. Find the three *positive* geometric means between 10 and $\frac{32}{125}$.

   [A] $\frac{10}{3}, \frac{10}{9}, \frac{10}{27}$ [B] $4, \frac{8}{5}, \frac{16}{25}$ [C] $6, \frac{18}{5}, \frac{54}{25}$ [D] $2, \frac{2}{5}, \frac{2}{25}$

   [2] _____

3. Find the four geometric means between 12 and –201,684.

   [3] _____

4. Find three geometric means between 11 and $\frac{2816}{81}$ for both a *positive* and a *negative* value of *r*.

   [4] _____

5. Write the first five terms of the geometric sequence using the given explicit formula.

   $t_n = \pm 8 \cdot \frac{1}{2}^n$

   [A] $-4, -2, -1, -\frac{1}{2}, -\frac{1}{4}$ [B] $\pm 8, -\frac{7}{2}, -\frac{3}{2}, -\frac{5}{6}, -\frac{1}{2}$

   [C] $\pm 8, -4, -2, -1, -\frac{1}{2}$ [D] $\pm 8, -4, -\frac{8}{3}, -2, -\frac{8}{5}$

   [5] _____

Write an explicit formula for the *n*th term of the geometric sequence.

6. $\frac{27}{8}, \frac{243}{32}, \frac{2187}{128}, \frac{19683}{512}, \ldots$

[A] $t_n = \frac{27}{8} \cdot \frac{9^{n+1}}{4}$ [B] $t_n = \frac{27}{8} \cdot \frac{9^{n-1}}{4}$ [C] $t_n = \frac{2}{3} \cdot \frac{9^n}{2}$ [D] $t_n = \frac{27}{8} \cdot \frac{9^{n-1}}{2}$

[6] _____