11-2 Geometric Sequences

Name: _____ Time› Start: _____ Finish: _____ Total Time = _____

Determine if the sequence given is a geometric sequence? Simply state Yes or No.

_____ 1. 2, 6, 18, 54, 162,…

_____ 2. 2, 4, 6, 8, 10, …

_____ 3. 3, 4.5, 6.75, 10.125, 15.1875, …

_____ 4. 7, 14, 28, 56, 112, …

_____ 5. .25, 1, 4, 16, 64, …

_____ 6. 120, 96, 76.8, 61.44, 49.152, …

Find the Explicit Formula for the sequences below. The formula is $a_n = a_1 \bullet r^{n-1}$

_____ 7. 1, 3, 9, 27, 81, …

_____ 8. 2, 4, 8, 16, 32, …

_____ 9. 5, -10, 20, -40, 80, …

_____ 10. 80, 40, 20, 10, 5, …

_____ 11. 3, 7.5, 18.75, 46.875, …

Given the sequence, find the 10^{th} term of the sequence.

_____ 12. .5, 1, 2, 4, 8, …

_____ 13. -32, 16, -8, 4, -2, …

_____ 14. 3, 12, 48, 192, 768, …

_____ 15. 3, 6, 12, 24, 48, …

The following are Geometric Sequences. Fill in the two blanks after you figure out the r value.
You will use the formula $a_n = a_1 \bullet r^{n-1}$ to figure out the r value.

16. 1, _____, _____, 125

17. 5, _____, _____, 40

18. 120, _____, _____, 15

19. .5, _____, _____, 4000