Math 4 Honors Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit 5 Test Prep Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Answer the following individually. Then log into Navnet & enter your answers.*

1. Factor by grouping: 

2. Are the terms in this sum arithmetic, geometric or neither? 4 + 7 + 10 + 13 + 16 + 19

3. Are the terms in this sum arithmetic, geometric or neither? 3 + 9 + 27 + 81 + 243

4. What is the *third* term in sequence defined by the following rule:



5. Use differences to determine if the following sequence will have a quadratic, cubic or quartic explicit rule.

1, 14, 51, 124, 245, …

6. Find the explicit rule for the sequence in #5.

7. An arithmetic sequence has -105.2 for its 32nd term and a common difference of -2.6. Find the first term of the sequence. *Show your work.*

8. A geometric sequence has 555,555 for its 12th term and a common ratio of 5. Find the first term of the sequence. *Show your work. Round your answer to the nearest 10,000th.*