

Enhanced Mid-Topic Assessment

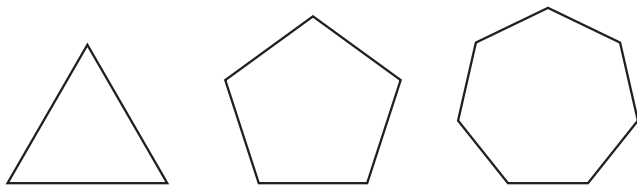
Name _____ Date _____

Part A: Multiple-Choice Questions

1. Which sequence has a common ratio of -3 ?
 - a. 9, 6, 3, 0, -3
 - b. -81 , 27, -9 , 3, 1
 - c. -21 , -18 , -15 , -12 , -9
 - d. 1, -3 , 9, -27 , 81
2. Which sequence has a common difference of 1.25?
 - a. 0, -1.25 , -2.5 , -3.75 , -5
 - b. 6.8, 8.05, 9.3, 10.55, 11.8
 - c. 1, 1.25, 1.5625, 1.953125
 - d. 8.75, 7.5, 6.25, 5, 3.75
3. Determine if the sequence 0.2, 1, 5, 25, ... is arithmetic or geometric. Then, identify the next term in the sequence.
 - a. Arithmetic; 75
 - b. Arithmetic; 125
 - c. Geometric; 75
 - d. Geometric; 125
4. Determine if the sequence -184 , -207 , -230 , -253 , ... is arithmetic or geometric. Then, identify the next term in the sequence.
 - a. Arithmetic; -23
 - b. Arithmetic; -276
 - c. Geometric; -23
 - d. Geometric; -276

Part B: Open-Response Questions

5. Consider the sequence shown.

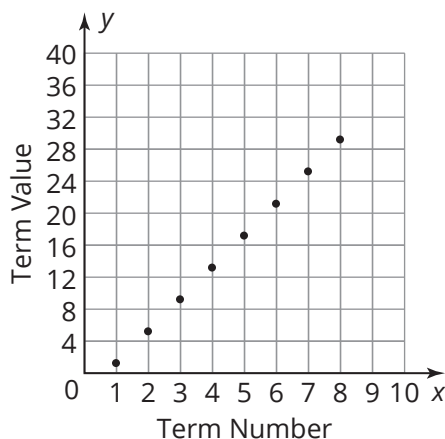


- a. Write a numeric sequence to represent the first 5 figures.
 - b. What is the domain of the sequence?
6. Identify the sequence as arithmetic or geometric. Then, determine the common difference or common ratio.

40, 8, 1.6, 0.32, 0.064

7. In her first week of gym training, Consuela can do 25 sit-ups per minute. During week two, she can do 29 sit-ups. By week three, she is up to 33 sit-ups. Consuela continues to increase the number of sit-ups she can do each week and follows the same pattern.
8. Tell whether the graph represents an arithmetic sequence or a geometric sequence. Explain your reasoning.

- a. Use a numeric sequence to represent the number of sit-ups she does per minute for the first 5 weeks of training.
- b. Does the sequence meet the definition of a function? Explain your reasoning.



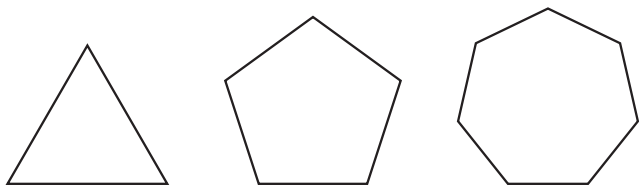
Part C: Griddable Response Questions

Record your answers and fill in the bubbles.

9. Determine the common difference or common ratio for the sequence.
4, -5, -14, -23, -32

+	0	0	0	0	0	0	0
-	1	1	1	1	1	1	1
	2	2	2	2	2	2	2
	3	3	3	3	3	3	3
	4	4	4	4	4	4	4
	5	5	5	5	5	5	5
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	8	8	8	8	8	8	8
	9	9	9	9	9	9	9

10. Consider the given figures. Determine the number of sides of the 10th figure in the pattern.



+	0	0	0	0	0	0	0
-	1	1	1	1	1	1	1
	2	2	2	2	2	2	2
	3	3	3	3	3	3	3
	4	4	4	4	4	4	4
	5	5	5	5	5	5	5
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	8	8	8	8	8	8	8
	9	9	9	9	9	9	9