Math 1 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2-2 Practice 3**  Date\_\_\_\_\_\_\_\_

*Lesson Objectives:*

* *I can convert a sequence into a recursive or explicit formula.*
* *I can use a formula to find missing terms in a sequence.*
* *I can determine the common difference/ratio from a sequence.*

Directions – Determine the desired term.

1. Which term of -14, -4, 6,…is 126?
2. Which term of 23, 33, 43,…is 123?
3. Which term of -38, -47, -56,…is -245?
4. Which term of 4, 204, 404,…is 3804?
5. Which term of -31, 169, 369,…is 2569?
6. Which term of 26, 19, 12,…is -30?
7. Which term of 6, 36, 66,…is 276?

Directions – Find the missing terms of the following arithmetic sequences.

1. -33, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, -113
2. 11, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, -4
3. 38, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 50
4. -21, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, -46
5. -6, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, -38
6. -1, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 41

Write out the first three terms of the following arithmetic sequences; then write an explicit and recursive formula.

Explicit Recursive

14. 

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Find the indicated term in each arithmetic sequence:

15. **** for -1, -7, -13, . . .

16. **** for 25, 73.1, 121.2, . . .

17. Find the average rate of change from *x* = 2 to *x* = 5

|  |  |
| --- | --- |
| *x* | *y* |
| 1 | 2.5 |
| 2 | 23.3 |
| 3 | 17.6 |
| 5 | 19.5 |

18. Find the next three terms in the sequence below.



19. Given the recursive or explicit equation, find the first three terms in each sequence below.

1.  \_\_\_\_\_\_\_, \_\_\_\_\_\_\_, \_\_\_\_\_\_\_
2.  \_\_\_\_\_\_\_, \_\_\_\_\_\_\_, \_\_\_\_\_\_\_

20. Solve the following:

