\*Learning Target:

\*Critical Content:

Sequence –

Terms of the sequence –

Arithmetic sequence –

Common difference –

Ex: Determine whether each sequence is an arithmetic sequence. Explain.

a) $-4, -2, 0, 2, …$ b) $\frac{1}{2},\frac{5}{8},\frac{3}{4},\frac{13}{16},…$ 1a) -26, -22, -18, -14, …

Ex: Find the next three terms of the arithmetic sequence 15, 9, 3, -3, …

**The nth term of an arithmetic sequence:**

$a\_{n}=$ \_\_\_\_\_ + (\_\_\_\_ - \_\_\_\_)\_\_\_\_

Ex: a) Write an equation for the nth term of the arithmetic sequence -12, -8, -4, 0, …

 b) Find the 9th term of the sequence.

|  |  |
| --- | --- |
| *n* |  $a\_{n}$ |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |

 c) Graph the first five terms of the sequence.

 d) Which term of the sequence is 32?

\*An arithmetic sequence is a \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in which *n* is the independent variable (\_\_\_) and $a\_{n}$ is

the dependent variable ( \_\_\_ ) and *d* is the \_\_\_\_\_\_\_\_.

Ex: Marisol is mailing invitations to her quinceanera. The arithmetic sequence $0.42, $0.84, $1.26, $1.68, … represents the cost of postage.

a) Write a function to represent this sequence.

b) Graph the function and determine the domain.

|  |  |
| --- | --- |
| *n* |  *f(n)* |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |