1

Use the sequence below to complete each task.

37, 35, 33, 31,….

a) Identify the common difference (d)

b) Write the explicit formula

c) Find the 26^{th} term (a_{26})

2

Use the sequence below to complete each task.

-34, -24, -14, -4,….

a) Identify the common difference (d)

b) Write the explicit formula

c) Find the 32^{nd} term (a_{32})

3

Use the sequence below to complete each task.

10, 0, -10, -20,….

a) Identify the common difference (d)

b) Write the explicit formula

c) Find the 40^{th} term (a_{40})

4

Use the sequence below to complete each task.

28, -2, -32, -62,….

a) Identify the common difference (d)

b) Write the explicit formula

c) Find the 18^{th} term (a_{18})

5

Use the sequence below to complete each task.

3, 9, 15, 21,….

a) Identify the common difference (d)

b) Write the explicit formula

c) Find the 16^{th} term (a_{16})

6

Use the sequence below to complete each task.

1, -29, -59, -89,….

a) Identify the common difference (d)

b) Write the explicit formula

c) Find the 26^{th} term (a_{26})

7

Use the sequence below to complete each task.

$a_n = 8 - 9n$

a) Identify the common difference (d)

b) Find the first 4 terms

c) Find the 50^{th} term (a_{50})

8

Use the sequence below to complete each task.

$a_n = 18 + 43n$

a) Identify the common difference (d)

b) Find the first 4 terms

c) Find the 29^{th} term (a_{29})

9

A case of the Zika virus was found in FL in 2 people. Each day 3 additional people were infected with the virus.

a) Find the first three terms

b) Write an explicit formula to represent this sequence.

c) Find how many people will have the virus in 100 days (a_{100}).

10

Mrs. Aikhuele created a Snapchat account and immediately had 10 followers. Her snaps are so funny, she gains an additional 6 followers each day.

a) Find the first three terms

b) Write an explicit formula to represent this sequence.

c) Find how many followers she will have after 50 days (a_{50}).

11

Mrs. Neville has an overweight dog. Her dog started out at 87 lbs. He needs to lose 2 pounds a week to get healthy again.

a) Find the first three terms

b) Write an explicit formula to represent this sequence.

c) Find how much her dog will weigh in 6 weeks.

12

You really need some extra credit. Your grade in math is a 54. Mrs. Washington agreed give you 3 points of extra credit for each additional assignment you complete.

a) Find the first three terms

b) Write an explicit formula to represent this sequence.

c) Find what your grade will be after 12 assignments

ARITHMETIC SEQUENCES

Task Cards!

Objective: To practice finding the common difference of an arithmetic sequence, write a formula to represent an arithmetic sequence, and use a formula to solve for a specific value within the sequence. Real world problems are included. (MGSE9-12.F.BF.1a, 2)

Directions:

1) Print, cut, and laminate the 12 task cards. Also, copy enough recording worksheets for each student. These are the ways I have run this activity:

    • Place a card at each station and have students move in groups of 3-4 from station to station after approximately 4 minutes. (This way you only have to copy one set of cards)

    • Students work in pairs and are given a card set. They work together to answer each card. You will need to print, cut, and laminate many sets. I typically prefer this because it leads to more one-on-one discussion.

2) Students complete each card, and record their answers on their recording worksheet. I require them to show work on a separate sheet of paper and staple to the recording worksheet.