NAME _____ DATE _____ PERIOD _____

3-5 Practice

Arithmetic Sequences as Linear Functions

Determine whether each sequence is an arithmetic sequence. Write *yes* or *no*. Explain.

1. 21, 13, 5, −3, . . .

2. −5, 12, 29, 46, . . .

3. −2.2, −1.1, 0.1, 1.3, . . .

4. 1, 4, 9, 16, . . .

5. 9, 16, 23, 30, . . .

6. −1.2, 0.6, 1.8, 3.0, . . .

Find the next three terms of each arithmetic sequence.

7. 82, 76, 70, 64, . . .

8. −49, −35, −21, −7, . . .

9. $\frac{3}{4}, \frac{1}{2}, \frac{1}{4}, 0, \ldots$

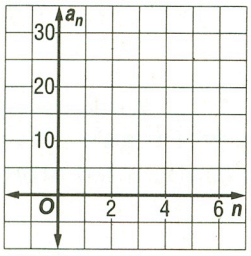
10. −10, −3, 4, 11 . . .

11. 12, 10, 8, 6, . . .

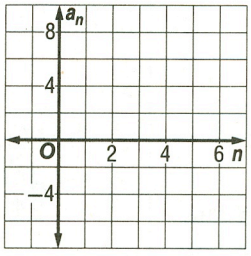
12. 12, 7, 2, −3, . . .

Write an equation for the *n*th term of each arithmetic sequence. Then graph the first five terms of the sequence.

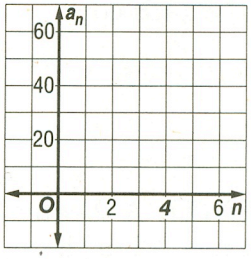
13. 9, 13, 17, 21, . . .



14. −5, −2, 1, 4, . . .



15. 19, 31, 43, 55, . . .



16. BANKING Chem deposited $115.00 in a savings account. Each week thereafter, he deposits $35.00 into the account.

a. Write a function to represent the total amount Chem has deposited for any particular number of weeks after his initial deposit.

b. How much has Chem deposited 30 weeks after his initial deposit?

17. STORE DISPLAYS Tamika is stacking boxes of tissue for a store display. Each row of tissues has 2 fewer boxes than the row below. The first row has 23 boxes of tissues.

a. Write a function to represent the arithmetic sequence.

b. How many boxes will there be in the tenth row?