Sequences and Series SS2: More Arithmetic Sequences

Find the given term of the arithmetic sequence.

1. $a_1 = 6,\ d = 2,\ n = 5$

2. $a_1 = 5,\ d = -5,\ n = 13$

3. $a_1 = 32,\ d = 15,\ n = 124$

The given number is ***which*** number in the given sequence?

4. $52,\ a_n = -2 + 6(n - 1)$

5. $41,\ a_n = 1 + 5(n - 1)$

6. $187,\ a_n = 2 + 5(n - 1)$

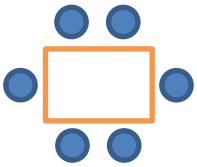
7. $227,\ a = -1, 2, 5, 8, \ldots$

8. $-100, a = 16, 12, 8, \ldots$

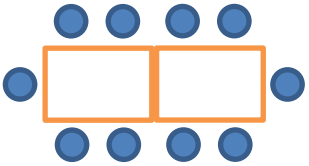
9. $19, a = -114, -107, -100, \ldots$

10. You are setting up tables for a dinner.

One table seats six people like this:



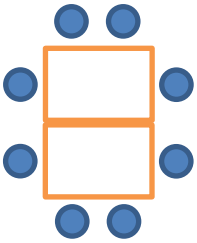
a. If you line up the tables like this:



write a sequence for the number of seats (a_n)

in terms of the number of tables (n)

b. If you line up the tables like this:



write a sequence for the number of seats (a_n)

in terms of the number of tables (n)

c. If you have 100 tables, how many people can be seated in each layout?