

Answer Key

1a. 12

1b. Item n is $2 \times n$.

1c. Item 2 = Item 1 + 2

1d. Item 3 = Item 2 + 2

1e. Item n = Item $n - 1$ + 2

2a. 2, 3, 4, 5, 6

2b. 3, 5, 7, 9, 11

2c. 1, 3, 5, 7, 9

2d. 2, 5, 11, 23, 47

3a. $a_n = n + 2$

3b. $a_n = n + 5$

4a. $a_n = 2n$

4b. $a_n = 3n$

4c. $a_n = 5n$

4d. $a_n = n^2$

5a. $a_n = 2n - 1$

5b. $a_n = 3n + 1$

5c. $a_n = 5n + 2$

5d. $a_n = n^2 + 1$

6a. $a_1 = 1; a_n = a_{n-1} + 2$

6b. $a_1 = 1; a_n = a_{n-1} + 4$

6c. $a_1 = 2; a_n = a_{n-1} + 2$

6d. $a_1 = 2; a_n = a_{n-1} + 4$

7a. $a_1 = 2; a_n = 2a_{n-1}$

7b. $a_1 = 1; a_n = 3a_{n-1}$

7c. $a_1 = 3; a_n = 2a_{n-1}$

7d. $a_1 = 2; a_n = (a_{n-1})^2$

8a. $a_1 = 1; a_n = 2a_{n-1} + 1$

8b. $a_1 = 2; a_n = 2a_{n-1} + 1$

8c. $a_1 = 1; a_n = 3a_{n-1} + 2$

8d. $a_1 = 1; a_n = 2a_{n-1} + 2$

9a. $a_1 = 3, a_2 = 6, a_3 = 9, a_4 = 12$, sum is 30.

9b. $a_1 = 4, a_2 = 4, a_3 = 4, a_4 = 4, a_5 = 4$, sum is 20.