

Find S_6 for each sequence described below.

1. $a_n = 5n$

$$S_6 = \underline{\hspace{2cm}}$$

2. $a_n = 3^n$

$$S_6 = \underline{\hspace{2cm}}$$

3. $a_n = 4n - 3$

$$S_6 = \underline{\hspace{2cm}}$$

4. $a_n = 3(2)^{n-1}$

$$S_6 = \underline{\hspace{2cm}}$$

5. $a_{n+1} = a_n + 2$; $a_1 = 3$

$$S_6 = \underline{\hspace{2cm}}$$

6. $a_{n+1} = 0.25a_n$; $a_1 = 64$

$$S_6 = \underline{\hspace{2cm}}$$

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

$$S_6 = \underline{\hspace{2cm}}$$

8. $a_{n+1} = 0.5a_n + 4$; $a_1 = 24$

$$S_6 = \underline{\hspace{2cm}}$$

Algebra 2 Class Worksheet #4 Unit 9 page 2

Evaluate each of the following sums.

9. $\sum_{i=1}^3 5i = \underline{\hspace{2cm}}$

10. $\sum_{i=1}^4 3^i = \underline{\hspace{2cm}}$

11. $\sum_{i=1}^6 \frac{i}{4} = \underline{\hspace{2cm}}$

12. $\sum_{k=2}^5 (3k - 5) = \underline{\hspace{2cm}}$

13. $\sum_{k=1}^5 k^3 = \underline{\hspace{2cm}}$

14. $\sum_{j=1}^{50} j = \underline{\hspace{2cm}}$

15. $\sum_{j=1}^{16} (-1)^j \left(\frac{j}{16}\right) = \underline{\hspace{2cm}}$

