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1. Write the first five terms of the sequence defined by $a_n = 5n + 3$.

2. Write the first five terms of the sequence defined by $a_n = (-2)^n$.

3. Write the first five terms of the sequence defined by $a_n = n^2 + 3$.

4. Write the first five terms of the sequence defined by $a_{n+1} = 3a_n$, if $a_1 = 2$.

5. Write the first five terms of the sequence defined by $a_{n+1} = a_n + 4$, if $a_1 = 3$.

6. Write the first five terms of the sequence defined by $a_{n+1} = -2a_n + 3$, if $a_1 = 2$.

7. Write the first five terms of the arithmetic sequence with $a_1 = 20$ and $d = 2$.

8. Write the first five terms of the geometric sequence with $a_1 = 20$ and $r = 2$.

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9. Write the explicit formula for the sequence 6, 12, 24, 48, 96, ...

10. Write the explicit formula for the sequence 6, 12, 18, 24, 30, ...

11. Write the explicit formula for the sequence 3, 8, 15, 24, 35, 48, ...

12. Write the recursive formula for the sequence 20, -10, 5, -2.5, 1.25, ...

13. Write the recursive formula for the sequence 2, 2.5, 3, 3.5, 4, ...

14. What is the 10th term of the arithmetic sequence with $a_1 = 10$ and $d = 13$?

15. What is the 10th term of the geometric sequence with $a_1 = 5$ and $r = 2$?

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16. What is the sum of the first 10 terms of an arithmetic sequence in which $a_1 = 12$ and $d = -2$?

17. What is the sum of the first 10 terms of a geometric sequence in which $a_1 = 12$ and $r = -2$?

18. What is the sum of the first 10 terms of the sequence defined by $a_n = 9n - 3$?

19. What is the sum of the first 10 terms of the sequence defined by $a_n = 0.25(2)^{n-1}$?

20. What is the sum of the first 10 terms of the sequence defined by $a_{n+1} = 0.5a_n$
where $a_1 = 256$?

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21. What is the sum of the first 10 terms of the sequence defined by $a_{n+1} = a_n + 5$ where $a_1 = 6$.

22. What is the sum of the first 10 terms of the sequence 2, 4, 6, 8, ...

23. What is the sum of the first 10 terms of the sequence 2, 4, 8, 16, ...

24. Evaluate the series $4 + 10 + 16 + 22 + \dots + 550$.

25. Evaluate the series $5 + 15 + 45 + \dots + 10,935$.

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26. Evaluate the series $12 + 2 + \frac{1}{3} + \frac{1}{18} + \dots$

27. Evaluate: $\sum_{k=1}^4 k^3$

28. Evaluate $\sum_{j=1}^{50} (-1)^j \binom{j}{50}$

29. Evaluate: $\sum_{i=1}^{10} (-3)(2)^{i-1}$

30. Evaluate: $\sum_{i=1}^{60} (3i + 1)$

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31. Evaluate: $\sum_{i=1}^{\infty} (0.7)(0.1)^{i-1}$

32. Find the 5 arithmetic means between 5 and 20.

33. Find the 2 geometric means between 8 and 27.

34. A certain job has a starting salary of \$32,000 with a guaranteed increase of \$700 per year. What will be the salary for the 12th year?

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35. A certain job has a starting salary of \$32,000 with a guaranteed increase of 2% per year. What will be the salary for the 12th year?

36. A job has a starting salary of \$32,000 with a guaranteed increase of \$700 per year. Find the total salary for the first twelve years.

37. A job has a starting salary of \$32,000 with a guaranteed increase of 2% per year. Find the total salary for the first twelve years.

38. An object accelerates in such a way that it travels 5 feet during the first second, 10 feet during the next second, 15 feet during the third second, and 20 feet during the fourth second. If this pattern continues, how far will it travel during the fifteenth second?

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39. An object accelerates in such a way that it travels 5 feet during the first second, 10 feet during the next second, 15 feet during the third second, and 20 feet during the fourth second. If this pattern continues, how far will it travel during the first fifteen seconds?

40. A ball is dropped from a height of 200 inches onto a concrete floor. On each bounce the ball rebounds to 65% of its previous height. How high will the ball bounce after it has hit the floor for the 10th time?

41. A ball is dropped from a height of 200 inches onto a concrete floor. On each bounce the ball rebounds to 65% of its previous height. What is the total vertical distance that the ball has traveled when it hits the floor for the tenth time?

42. A ball is dropped from a height of 200 inches onto a concrete floor. On each bounce the ball rebounds to 65% of its previous height. What is the total vertical distance that the ball will travel before it comes to rest?
