Find the indicated arithmetic or geometric means for each set of non-consecutive terms.

1. 6 arithmetic means between 12.4 and -24.7

2. 2 geometric means between -4 and 13.5

3. 3 geometric means between 10 and .016

Find the indicated sum of the following arithmetic series.

4. 211 + 193 + 175 + . . . + (-455)

5. 19th partial sum of -19 + 23 + 65 + . . .

Find the sum of the first 11 terms of the following geometric series.

6. 7 + (-24.5) + 85.75 + . . .

7. Find the sum of the first n terms of the geometric series with a_1 = -8, a_n = 131072 and r = -4

Find the indicated sum for the following series.

8. $\displaystyle\sum_{n=1}^{9}\left(\frac{2}{3}n+16\right)$

9. $\displaystyle\sum_{x=1}^{25}\left(\frac{5}{4}x-71\right)$

10. $\displaystyle\sum_{k=23}^{37}\left(2k+3\right)$

11. $\displaystyle\sum_{x=12}^{18}\left(-2x+57\right)$

12. $\displaystyle\sum_{k=1}^{6}24\left(\frac{3}{2}\right)^{k-1}$

13. $\displaystyle\sum_{g=1}^{10}3\left(-4\right)^{g-1}$

14. $\displaystyle\sum_{n=16}^{31}\frac{1}{2}\left(2\right)^{n-1}$

15. $\displaystyle\sum_{z=4}^{11}120\left(\frac{1}{2}\right)^{z-1}$

Find the sum of the infinite geometric series.

16. 10 + (-5) + 2.5 + . . .

18. 20 + 15 + 10 + . . .

17. $\displaystyle\sum_{b=1}^{\infty} 120\left(\frac{4}{5}\right)^{b-1}$

19. $\displaystyle\sum_{k=1}^{\infty} 62(-2)^{k-1}$

Write the series in sigma notation.

20. 3 + 12 + 48 + . . . + 3072

22. 250.2 + 250.4 + 250.6 . . . + 254.8

21. 1152 + 576 + 288 . . . + .5625

23. 9 + 6 + 3 . . . + (-36)

24. Selma is playing a video game. She scores 50 points if she clears the first level. Each following level is worth 50 more points than the previous level. Thus, she scores 100 points for clearing the second level, 150 points for the third level and so on. What is the total amount of points Selma will score after she clears the ninth level?