Sums of Arithmetic and Geometric Series

Find the sum of each series.

1. $t_1 = 5$ and $t_{20} = 62$

2. $t_1 = 17$ and $t_{100} = 215$

3. $n = 10, r = -3, t_1 = 2$

4. $n = 7, r = 4, t_1 = -5$

5.

$$\sum_{n=0}^{6} 3 \cdot 2^n$$

6.

$$\sum_{1}^{24} (2n - 1)$$

7. The first 100 terms of the series $4 + 7 + 10 + 13 + \cdots$

8. The first 80 terms of the series $5 + 8 + 11 + 14 + \cdots$

9. Find the sum for

$11 + 15 + 19 + \cdots + 83$

10. Find the sum for

$50 + 48 + 46 + \cdots + 10$