

1. $3(1) - 5 + 3(2) - 5 + 3(3) - 5 + 3(4) - 5$

2. $11 - 2(1) + 11 - 2(2) + 11 - 2(3) + 11 - 2(4) + 11 - 2(5)$

3. $1(1+1) + 2(2+1) + 3(3+1) + 4(4+1) + 5(5+1) + 6(6+1) + 7(7+1)$

4. $10(2)^{2-1} + 10(2)^{3-1} + 10(2)^{4-1} + 10(2)^{5-1}$

5. $\sum_{n=1}^7 n$

12. $\sum_{n=1}^{17} 500 \left(\frac{1}{5}\right)^{n-1}$

6. $\sum_{n=1}^5 n^n$

13. $\sum_{n=1}^{55} 3n + 2$

7. $\sum_{n=1}^6 \frac{1}{n}$

14. $\sum_{n=1}^{15} 4 \left(\frac{3}{4}\right)^{n-1}$

8. $\sum_{n=7}^{\infty} \frac{1}{3^n}$

9. $\sum_{n=1}^{20} 4n - 1$

10. $\sum_{n=1}^{12} 2(3)^{n-1}$

11. $\sum_{n=1}^{40} -7n + 107$

explicit formulas for sequences

• arithmetic

★ $u_n = n(\text{c.d.}) + u_0$

OR $u_n = (n-1)(\text{c.d.}) + u_1$

• geometric

★ $u_n = u_1 (cr)^{n-1}$

OR $u_n = u_0 (cr)^n$

★ is my preferred equation