

Sequences

Find the general term of the sequences where the first term corresponds to $n = 1$.

1. $-1, 5, -7, 17, \dots$

6. $\frac{11}{9}, \frac{21}{19}, \frac{31}{29}, \frac{41}{39}, \dots$

2. $0, -2, -6, -12, \dots$

7. $\frac{2}{1}, \frac{2^4}{2}, \frac{2^9}{3}, \frac{2^{16}}{4}, \dots$

3. $\frac{\sin 2}{1}, \frac{\sin 4}{3!}, \frac{\sin 6}{5!}, \frac{\sin 8}{7!}, \dots$

8. $\frac{-2!}{3}, \frac{3!}{5}, \frac{-4!}{7}, \frac{5!}{9}, \dots$

4. $\frac{1}{2}, \frac{e}{6}, \frac{e^2}{12}, \frac{e^3}{20}, \dots$

9. $2, \sqrt{7}, \sqrt{10}, \sqrt{13}, \dots$

5. $-2, \frac{4}{\sqrt{2}}, \frac{-8}{\sqrt{3}}, \frac{16}{\sqrt{4}}, \dots$

10. $\frac{4}{2}, \frac{7}{4}, \frac{12}{6}, \frac{19}{8}, \dots$