

Zadatak 8. Odredi mogući n -ti član a_n niza kojemu prvih nekoliko članova glasi:

- 1) $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{4}{5}, \dots$;
- 2) $2, 3, 5, 9, 17, \dots$;
- 3) $2, 6, 12, 20, 30, \dots$;
- 4) $1, -1, 1, -1, 1, \dots$;
- 5) $1, \frac{1}{3}, \frac{1}{7}, \frac{1}{15}, \frac{1}{31}, \dots$;
- 6) $2, 9, 28, 65, 126, \dots$;
- 7) $2, \frac{4}{3}, \frac{6}{5}, \frac{8}{7}, \dots$;
- 8) $-3, \frac{5}{3}, -\frac{7}{5}, \frac{9}{7}, -\frac{11}{9}, \dots$

Rješenje.

- 1) $a_n = \frac{n}{n+1}$; 2) $a_n = 2^{n-1} + 1$; 3) $a_n = n(n+1)$; 4) $a_n = (-1)^{n-1}$;
- 5) $a_n = \frac{1}{2^n - 1}$; 6) $a_n = n^3 + 1$; 7) $a_n = \frac{2n}{2n-1}$;
- 8) $a_n = (-1)^n \frac{2n+1}{2n-1}$.