

$$\deg_{r_n}(a_k) = 10 + 1 + 4k + 1 + 2 = 4k + 14,$$

$$\deg_{r_n}(b_k) = 8 + 1 + 4k + 3 = 4k + 12,$$

$$\deg_{r_n}(c_k) = 6 + 1 + (4k - 1) + 2 + 5 = 4k + 11,$$

$$\deg_{r_n}(d_k) = 3 + 1 + 1 + (4k - 1) + 7 = 4k + 13.$$