Theorem. Let f, g be real polynomials, and suppose that their Wronski determinant $W(f, g) = f'g - fg'$ has all zeros real. Let I be a real interval containing no zeros of W. Then any linear combination $af + bg$ has at most one root on I.

Can this be generalized to more than 2 polynomials? The simplest unsolved case is

Conjecture. Let f, g, h be real polynomials, and suppose that their Wronskian $W(f, g, h)$ has all zeros real. If I is a real interval containing no zeros of W then any linear combination $af + bg + ch$ has at most two roots on I.