1. Find all real numbers x satisfying |2x - 2| < |x + 1|.

2. Find all polynomials p(x) of degree ≤ 2 satisfying p(1+x)=p(1-x) for all x.

3. a) Define $\binom{n}{k}$.

b) State the Binomial Theorem.

c) Determine the coefficient of x^{18} in $(2x^3-5)^{10}$ (give its prime factorization!).