Senior Questions

1. (a) Solve $\langle p_0, p_1 \rangle$ and show it equals zero.

   (b) Let $p_2(x) = a_2x^2 + a_1x + a_0$, and solve the equations $\langle p_2, p_0 \rangle = 0$ and $\langle p_2, p_1 \rangle = 0$ simultaneously.

   (c) Add up $_0p_0 + _1p_1 + _2p_2$ and show the coefficients of the x^2, x and constant term can be any number.