(1) If \( f(x), g(x), \) and \( h(x) \) are quadratic polynomials, can the degree eight polynomial \( f(g(h(x))) = 0 \) have roots 1, 2, 3, 4, 5, 6, 7, 8?

(2) The integer \( d \) is not divisible by 5. Given that for some integer \( n \), we have \( an^3 + bn^2 + cn + d \) divisible by 5, show that for some integer \( m \), we have \( a + bm + cm^2 + dm^3 \) divisible by 5.

(3) A straight line is drawn on an 8 x 8 chessboard. What is the largest possible number of the unit squares with interior points on the line?