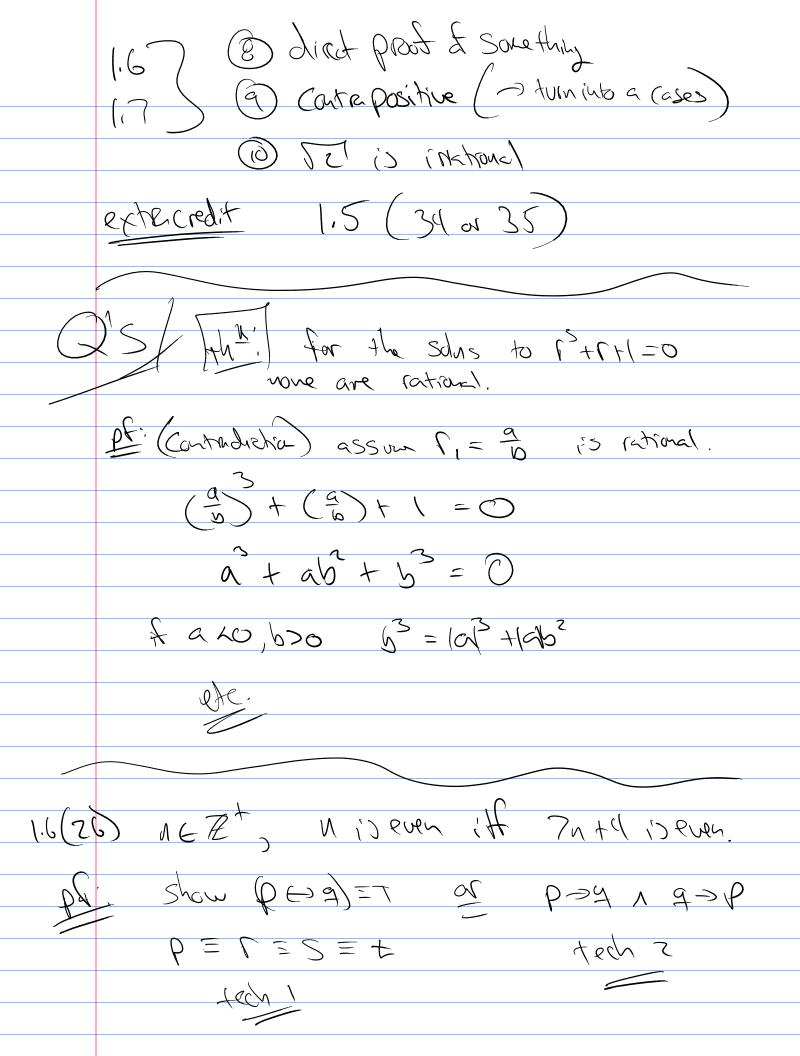
Math 321 Frant 10 polos + 1 extra credit (colors) Eng ( Synlods exi. p. "bleck" g. "bleck" (P -> y) V 7 P in a eng. sentence. Ex Sher a sentence you choose symbols of ops. (2) truth toba everyone should know. 1,2 (2 polos) show P = q by a truth table (9) Use the baical equivalences 1.3 (5) Fry (5) Syn. 1.5 (2 probs)

Silven previses State valid conclusion(s). 5) given the argument state the ides/ Fallacio



N 15 Even = N = 2K for She K= {1,2,5,-.} = 7(ZX)+4 = 14K+4 = 2(7Kt) = > n + 4 (5 Gm RURN. n=2K -> 7n+9 = 7(28+4 = (4K+4) = Z(7K+2) So Tutal 1) luch 70,+9 is ever -> N is ever (n is add) -> (70+4 is odd) N=ZK+1 -> >(SK+1)+d =14K+7+4 = (qK + 10 + 1 2(7K+5)+1 i) odd

 $if N \leq Z \rightarrow (N+0) Z 3^{N}$ · Case Prove (N+1) X 3 than N>2