Assignment # 2 Sample

1. Prove or disprove, if p and q are distinct prime numbers (p≠q), then $\sqrt{(pq)}$ is irrational.

2. Prove, if L is a language over Σ then
   $\lim(n\rightarrow\infty) L^n = \Sigma^*$ iff $(\Sigma\cup\{\lambda\}) \subseteq L$.
   Note: $L^k = \{ x_1x_2\ldots x_k| x_1,x_2,\ldots,x_k \in L \}$