Define sequence $(p_k) = (p_3, p_4, \dots)$ as numbers of k-sized faces – k-gons – of an embedding of a planar graph. A corollary to Euler's formula for planar graphs states that for cubic graphs $\sum_{k\geq 3} (6-k)p_k = 12$ holds. Naturally, this leads us to explore the nature of p for which a corresponding cubic planar graph exists. Eberhard proved that if p satisfies the equality above then a cubic planar graph that corresponds to p except for the number of hexagons, exists. DeVos et al. show similar theorem, but instead of hexagon, both pentagons and heptagons can be added. In this thesis, we extend their result by using their proof strategy and designing a program to find graphs needed in such proof. We were able to prove that for every pair $r, s \in \mathbb{N}$ where $s < 6 < r < 14$ and r, s are coprime the following theorem holds: for each sequence of nonnegative integers satisfying $\sum_{k\geq 3} (6-k)p_k = 12$ there are infinitely many cubic planar graphs corresponding to p except for the number of both r-gons and s-gons.