X \subseteq \mathbb{N} \text{ tiles the plane} if there is a tiling of the plane consisting of exactly one square each of side-length \( n \) for every \( n \in X \). In [1] we prove that \( \mathbb{N} \) tiles the plane. It is easy to show that if \( X \) contains every sum of two distinct members of \( X \), then \( X \) tiles the plane. We show here that if \( X \) contains no such sums then \( X \) doesn’t tile the plane. We show in addition that the prime numbers do not tile the plane and that there is a set such that it and its complement each tile the plane.