

AUC apCalculus BC

Assignment I

2. Eventually true over \mathbb{N}

PROBLEM 2.1. Prove that the following properties are true eventually on $n \in \mathbb{N}$ for any given $\epsilon > 0$:

- (1) $n^2 + 6n^7 > \epsilon$.
- (2) $4n^8 - 6n^7 > \epsilon$.
- (3) $n^8 - n^7 + 1 > \epsilon$.
- (4) $\sqrt[5]{n} - 5n^{0.1} - 7 > \epsilon$.