

**15.**

$$\text{“}n^3 + 4n \text{ is prime for } n \in \mathbb{N}\text{”} \quad (\text{I})$$

- (a) Determine whether statement (I) is always true, sometimes true or never true.  
You must fully justify your answer.

**(2)**

$$\text{“}n^3 + 5n \text{ is prime for } n \in \mathbb{N}\text{”} \quad (\text{II})$$

- (b) Determine whether statement (II) is always true, sometimes true or never true.  
You must fully justify your answer.

**(2)**