1. The sum of any two throddodd integers is throdd.

2. Show that if $p \in \mathbb{Z}$ and $p^2 \equiv_5 0$ then $p \equiv_5 0$.

3. The statements $P \Rightarrow (Q \wedge R)$ and $(P \Rightarrow Q) \wedge (P \Rightarrow R)$ are logically equivalent.

4. $\sqrt{5}$ is irrational.

5. For any $n \in \mathbb{Z}^+$,

$$\sum_{i=1}^{n} (2i - 1) = n^2$$