▷. **Conjecture B**. If b and c are odd integers and a is an integer, then $ab + ac$ is an even integer.

▶. Is Conjecture B true or false? Justify your answer.

Note symbolically: $(\forall\,(a, b, c) \in \mathbb{Z}^3)\,[\,(\ b \text{ is odd } \wedge c \text{ is odd }\ ) \implies ab + ac \text{ is even }]$

▷. It should be understood that the instructions means to do one of the following.

- If the conjecture is false, then say the conjecture is false. Next justify by providing a counterexample (i.e., an example which shows the conjecture is false). Explain why your counterexample is indeed a counterexample.
- If the conjecture is true, then say the conjecture is true. Next justify by providing a proof of the true conjecture.

. . . . . .