Answer on Question #61795 – Math – Abstract Algebra

Question

If B=ab such that a, b are integers , then B is a set of _____numbers

Solution

Since we can take $a = 1$ and *b* is any integer, then the set of all integers is a subset of *B*.

Let $x \in B$ be non-integer. According to the definition of *B* (*B*=*ab* such that *a*, *b* are integers), there exist such integers a, b that $x = ab$. But the product of integers is integer too. Thus, every $x \in B$ is integer.

Answer: If B=ab such that a, b are integers, then B is a set of integer numbers.