

## Subsets

$A = \{1, 3, 5, 7, 9\}$ . We might also want to discuss another set, the prime numbers greater than two, but less than ten, call that **B**.  $B = \{3, 5, 7\}$ . Notice that all the elements of B are contained in A. Then B is called a subset of A, written  $B \subseteq A$ .

So now we have another definition, a subset, **B is a subset of A if and only if all the elements in B are also elements of A.**

If B is a subset of A and B is not equal to A, then B is a proper subset of A, written  $B \subset A$ . In other words, B would have to have fewer elements.