What is a variable?

A variable is a ticket on which a computer, he, she or it, can write, read, or rewrite data.
What is a variable?

A variable is a storage location.

Better: A variable is a data storage facility that is located somewhere in the computer hardware.
To locate a variable
A simple variable is located by its name.

One element in an array... IS A VARIABLE. It is located by the array name plus an int index or subscript.
Where a variable can be:

1. Local in a method.
3. In an INSTANCE of a CLASS.
A variable in an instance of a class

READ CHAPTER 11 (after today's lecture)!
A variable in an instance of a class is called a

field.
When you create a class, you define fields and define methods.
Examples of fields

public class Student //From Chapter 11
{
    private String name; //name is a field
    private double[] array; //array is a field
}

public class Primary //From Lab 12
{
    private String party;
    private int votes[];
    private String candidates[];
}
How are arrays and variables different?

An array is many variables. Each ONE variable is called ONE ELEMENT.

The elements of one array are located “near” each other in the computer memory.