1. **What functionality does a for block provide that a foreach does not?**

A for block provides the following four functionalities that a foreach does not:

1. A for loop allows you to iterate through only some elements in an array, while foreach iterates over all of the elements in an array.
2. foreach loop always iterates from index 0 through index Length-1, so if you want to iterate backward or in another sequence a for loop is necessary.
3. If the body of the loop needs to know the index of the element rather than just the value, you use a for loop.
4. If you need to modify the elements of an array, you use a for loop, because foreach is read-only.
5. **What is the primary advantage of jagged arrays over a multidimensional array (i.e., one created using the new int[4, 2] syntax)?**

The primary advantage of jagged arrays over multidimensional arrays is memory conservation. A jagged array creates an array of arrays so that no space is allocated for elements that the application is not going to use. In contrast, multidimensional arrays can consume a lot of memory since they might allocate memory for unused elements if the application uses only some of the data in each column.

1. **Declare an enum with underlying type short and at least three legal values**

enum Season : short { Spring, Summer, Fall, Winter }