

```
1  //Grading ID: A1340
2  //Lab6
3  //Due Date: 10/29/2017
4  //This program is meant to show how to use arrays to match a grade to the number of words per minute.
5  using System;
6  using System.Collections.Generic;
7  using System.ComponentModel;
8  using System.Data;
9  using System.Drawing;
10 using System.Linq;
11 using System.Text;
12 using System.Threading.Tasks;
13 using System.Windows.Forms;
14
15 namespace Lab6
16 {
17     public partial class Form1 : Form
18     {
19         public Form1()
20         {
21             InitializeComponent();
22         }
23         //When clicking the button, the event handler activates to start the code.
24         private void CalculateButton_Click(object sender, EventArgs e)
25         {
26             int WPM;// wordsperminute variable to hold the number of words per minute.
27             int[] WordLowLimit = { 0, 16, 31, 51, 76 };// first array to hold the low limit numbers
28             char[] Grades = { 'F', 'D', 'C', 'B', 'A' };// second array to hold the letter grade
29             bool found = false;//found is set to false for in case the user inputs invalid entry
30             char StudentGrade = 'F';// Used to hold the lowest grade for the array.
31             if(int.TryParse(WordsTextBox.Text, out WPM) && WPM >= 0)
32             {
33                 int index = WordLowLimit.Length - 1;// index is used to search through the array.
34
35                 while (index >= 0 && !found)
36                 {
37                     if (WPM >= WordLowLimit[index])
38                         found = true;
39                     else
40                         --index;
41                 }
42                 if (found)
43                 { StudentGrade = Grades[index]; }
44                 GradeOutput.Text = ("Student's grade is {StudentGrade}");
45             }
46         }
47     }
48 }
```

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46         else
47         {
48             MessageBox.Show("Invalid Entry");
49
50         }
51     }
52 }
53 }
54
```