**Note**: When using PowerShell and referencing commands in a lab, the > symbol represents the command prompt. Don’t type it in. Also, if a command is on a new line but doesn’t have a > it probably means that it just didn’t fit on one line on the lab. You should still type it all on one line in PowerShell.

Open PowerShell and Define $var as shown below:

> $var = “All your base are belong to us”

**Q:** What output do you get if you enter:

> Write-Output $var

**Q:** Based on that what does the Write-Output command do?

**Q:** What happens if you enter only:

> $var

Enter:

> $var.ToUpper()

**Q:** What happens?

**Q:** Has the information stored in $var changed if you check?

Enter:

> $var | get-member

This should give you a list of all possible methods for the type of variable you send it. If you have a number stored in $var you will get different results than if you have text stored there.

**Q:** Do you see the .ToUpper method you used in that list?

Enter:

> $var.Trim(‘us’)

**Q:** What output do you get?

**Q:** What command could you use to trim $var if there was an empty space at the end of it?

Enter:

> $var.Split(‘a’)

**Q:** Based on the results you get, what command could you use to split $var into individual words?

Enter:

> $var.substring(0,3)

**Q:** What output do you get?

Try changing the numbers you use with the .substring() method.

**Q:** What does the first number do?

**Q:** What does the second number do?

**Q:** What substring command could I use if I wanted only the first letter of $var?

Enter:

> $var.substring(4)

**Q:** If you only provide the starting position argument how many characters does it output?

**Q:** Have any of the methods you’ve used on $var changed what is stored in $var?   
 (Check before you answer)

**Q:** Look back over the methods you’ve used. What is the () for after a method?

Define $fname and $lname as shown, and then enter the 3rd line:

> $fname = “peter”

> $lname = “parker”

> $fname+$lname

**Q:** What output do you get?

Enter:

> $fname + “ “ + $lname

**Q:** What is different now?

Define $fname and $lname again, then display them with the 3rd line:

> $fname = “Good “ (that is Good with a bunch of spaces after it)

> $lname = “Brainman”

> $fname+$lname

**Q:** What output do you get?

**Q:** Combining some of the commands you have used so far to modify the variables, how could you get, Good Brainman to output?

In PowerShell there is sometimes a difference between single quotes( ‘ ) and double quotes( “ ).

First, let’s look at a situation where it doesn’t make a difference which quote you use.

Enter:

$person1 = ‘Happy Go Lucky’

$person2 = “Happy Be Lucky”

Write-Output $person1

Write-Output $person2

**Q:** In this situation, what difference do you see between using single and double quotes?

Now let’s look at a situation where it matters which type of quote you use.

Enter:

$i = 5

Write-Output “the value of $i is $i”

Write-Output ‘the value of $i is $i’

**Q:** What color difference do you see in the actual Write-Host commands you typed in?

**Q:** What is the difference in how PowerShell interprets $i when using the different types of quotes?

**Q:** Which would be the appropriate type of quote to use in this Write-Host statement?

Let’s use an array now. To review from lecture, an array is a variable that contains multiple values within the variable.

Define $names as an array, by entering what is shown below:

> $names = 10,20,30,40,50,60,70

**Q:** Will the command let you write numbers into a variable called $names even though it is not letters? Why or Why not?

Enter:

> Write-Output $names

**Q:** How is it different than what you typed in?

**Q:** What does the comma appear to do?

Enter:

> $names[3]

**Q:** What output do you get?

Try different numbers instead of 3.  
**Q:** Based on your testing, what number does it start counting with?

**Q:** What command would you use if you wanted to access the number 60 in this variable?

Define the variable $numbers as shown below:

> $numbers = "Ben","SAm","Roger","Kaitlyn","Janice"

Look back over the commands you’ve used thus far.  
**Q:** What command could you use **to find** a method to convert this list to all lower case?

**Q:** What command would you use to convert this list to all lower case?

Enter:

$fname = ‘janice’

Using concepts learned in this lab, write a command that will capitalize just the first letter of the name. (ie. return Janice)

Your solution should also work if $fname = ‘paddington’ or $fname = ‘bill’

**Paste your solution below:**