Course	**CSC 215 Programming Techniques**
Name	**Homework 9**
Due Date	**2/15/2017**
Repository	**Homework Repository**
Solution Name	**hw9b.sln**
Project Files	**Hw9b.cpp (download from d2l)**

Setup:
Create a project name hw9b inside your homework repository.
Download the hw9b.cpp from d2l and place inside the solution.
Add this file to your solution explorer.

Problem:
You need of a case insensitive compare for c++ strings. You must write this function as a recursive. If you find yourself writing a loop, you are not letting the recursion do its job.
This function will return the following values for a case insensitive compare

S1 == S2	0
S1 < S2	< 0 will be returned if s1[position] is less than s2[position] ignoring case
S1 > S2	> 0 will be returned if s1[position] is greater than s2[position] ignoring case

Think about when you the position goes beyond a string. Only do an insensitive compare when both characters are true for the isalpha function in cctype.

Requirements:
Must be a recursive function and pass all the tests include in the cpp file.
You must create 5 more test functions that you add to the section "My Test Cases". Try and get the wrong answers. Place a comment above the CHECK stating why you are using this.

To get credit for this, you must have 5 valid test cases and pass the include tests and your own.
You will need to create additional strings for you test cases and add them to the catch test case section.

Hints:

Use the ascii chart to come up with interesting cases. Only generate test case that you can type at the keyboard when the program is run.

Dec	Hx	Char	Dec	Hx	HTML	Char	Dec	Hx	HTML	Char	Dec	Hx	HTML	Char
0	0	NUL (null)	32	20	&#32;	Space	64	40	&#64;	@	96	60	&#96;	`
1	1	SOH (Start of heading)	33	21	&#33;	!	65	41	&#65;	A	97	61	&#97;	a
2	2	STX (Start of text)	34	22	&#34;	"	66	42	&#66;	B	98	62	&#98;	b
3	3	ETX (End of text)	35	23	&#35;	#	67	43	&#67;	C	99	63	&#99;	c
4	4	EOT (End of transmission)	36	24	&#36;	$	68	44	&#68;	D	100	64	&#100;	d
5	5	ENQ (Enquiry)	37	25	&#37;	%	69	45	&#69;	E	101	65	&#101;	e
6	6	ACK (Acknowledge)	38	26	&#38;	&	70	46	&#70;	F	102	66	&#102;	f
7	7	BEL (Bell)	39	27	&#39;	'	71	47	&#71;	G	103	67	&#103;	g
8	8	BS (Backspace)	40	28	&#40;	(	72	48	&#72;	H	104	68	&#104;	h
9	9	TAB (Horizontal tab)	41	29	&#41;	)	73	49	&#73;	I	105	69	&#105;	i
10	A	LF (NL line fd, new line)	42	2A	&#42;	*	74	4A	&#74;	J	106	6A	&#106;	j
11	B	VT (Vertical tab)	43	2B	&#43;	+	75	4B	&#75;	K	107	6B	&#107;	k
12	C	FF (NP form fd, new page)	44	2C	&#44;	,	76	4C	&#76;	L	108	6C	&#108;	l
13	D	CR (Carriage return)	45	2D	&#45;	-	77	4D	&#77;	M	109	6D	&#109;	m
14	E	SO (Shift out)	46	2E	&#46;	.	78	4E	&#78;	N	110	6E	&#110;	n
15	F	SI (Shift in)	47	2F	&#47;	/	79	4F	&#79;	O	111	6F	&#111;	o
16	10	DLE (Data link escape)	48	30	&#48;	0	80	50	&#80;	P	112	70	&#112;	p
17	11	DC1 (Device control 1)	49	31	&#49;	1	81	51	&#81;	Q	113	71	&#113;	q
18	12	DC2 (Device control 2)	50	32	&#50;	2	82	52	&#82;	R	114	72	&#114;	r
19	13	DC3 (Device control 3)	51	33	&#51;	3	83	53	&#83;	S	115	73	&#115;	s
20	14	DC4 (Device control 4)	52	34	&#52;	4	84	54	&#84;	T	116	74	&#116;	t
21	15	NAK (Negative acknowledge)	53	35	&#53;	5	85	55	&#85;	U	117	75	&#117;	u
22	16	SYN (Synchronous idle)	54	36	&#54;	6	86	56	&#86;	V	118	76	&#118;	v
23	17	ETB (End of trans. block)	55	37	&#55;	7	87	57	&#87;	W	119	77	&#119;	w
24	18	CAN (Cancel)	56	38	&#56;	8	88	58	&#88;	X	120	78	&#120;	x
25	19	EM (End of medium)	57	39	&#57;	9	89	59	&#89;	Y	121	79	&#121;	y
26	1A	SUB (Substitute)	58	3A	&#58;	:	90	5A	&#90;	Z	122	7A	&#122;	z
27	1B	ESC (Escape)	59	3B	&#59;	;	91	5B	&#91;	[	123	7B	&#123;	{
28	1C	FS (File separator)	60	3C	&#60;	<	92	5C	&#92;	\	124	7C	&#124;	|
29	1D	GS (Group separator)	61	3D	&#61;	=	93	5D	&#93;	]	125	7D	&#125;	}
30	1E	RS (Record separator)	62	3E	&#62;	>	94	5E	&#94;	^	126	7E	&#126;	~
31	1F	US (Unit separator)	63	3F	&#63;	?	95	5F	&#95;	_	127	7F	&#127;	DEL

When you have two characters that are a-z or A-Z, consider using the tolower or toupper function to remove case sensitivity.