

CS111 Summer 2019 LAB QUIZ 2

NAME _____ CUNYID _____

SECTION 1 – LOOPS – 5 Points each

```
int main()
{
    int j = 0;
    for (int i = 0; i < 100; i++)
    {
        if ((i % 10) == 0)
            j += i;
    }
    cout << j << endl;
}
```

Q1) Output of code above**450** _____

```
int i = 1999999;
while (i)
    i--;
cout << i << endl;
```

Q2) Output of code above**0** _____

```
i = 1999999;
for (; i >= 0; i--)
{

}
cout << i << endl;
```

Q3) Output of code above**-1** _____

```
for (int i = 1; i <= 10; i++)
{
    if ((i % 2) == 0)
        continue;
    if ((i % 7) == 0)
        break;
    cout << i;
}
cout << endl;
```

Q4) Output of code above

135

```
srand(time(0));
char c = 'D' + (rand() % 5);
cout << c << endl;
```

Q5) Possible output of code above

DEFGH

```
int f = 10;
int g = 20;
while (f*g <= 200 && f < 100 && g < 20)
{
    cout << f;
    f += 10;
    g += 10;
}
```

Q6) Output of code above

NO OUTPUT

SECTION 2 – Programming– 10 Points each

```
// returns the smallest of three numbers
```

```
// example
```

```
// min(1,2,3) ==> 1
```

```
// min(3,3,6) ==> 3
```

```
int min(int x, int y, int z)
```

```
{
```

```
    return(x<y?x:y);
```

```
}
```

```
// write a swap function that swaps two integers.
```

```
// It has void return type
```

```
// example:
```

```
// int i = 2, j = 3;
```

```
// swap(i,j)
```

```
// after the swap is called i == 3 and j == 2
```

```
void swap(int &i, int &j)
```

```
{
```

```
    int temp = i;
```

```
    i = j;
```

```
    j = temp;
```

```
}
```

```
// rounds a double up to the nearest integer
```

```
// example:
```

```
// RoundUp(2.1) ==> 3
```

```
// RoundUp(2.0) ==> 2
```

```
// RoundUp(1.9) ==> 2
```

```
int RoundUp(double d)
```

```
{  
    int i = d;  
    if (d - i  
        i++;  
    return(i);  
}
```

```
// returns the next character
```

```
// NextChar('A') ==> B
```

```
// NextChar('a') ==> b
```

```
char NextChar(char c)
```

```
{  
    c++;  
    return( c );  
  
}
```

SECTION 3 – Make Up Points From First Quiz– 5 Points each

```
// returns the remainder of when two integers that are
// divided by each other
// remainder(10, 5) ==> 0
// remainder(10, 9) ==> 1
int remainder(int num, int dividedBy)
{
    int i = num/ dividedBy;
    return (num - (i* dividedBy));
}
// returns true false if a number is evenly divisible by another number
// IsDivisibleBy(10, 5) ==> true
// IsDivisibleBy(10, 6) ==> false
bool IsDivisibleBy(int num, int dividedBy)
{
    return(num% dividedBy==0);
}
// returns the larger of two integers
// example
// max(1,2) ==> 2
// max(1,1) ==> 1
int max(int i1, int i2)
{
    return(i1>i2?i1:i2);
}
```

ASCII CHART

Dec	Hex	Oct	Chr	Dec	Hex	Oct	HTML	Chr	Dec	Hex	Oct	HTML	Chr	Dec	Hex	Oct	HTML	Chr
0	0	000	NULL	32	20	040	 	Space	64	40	100	@	@	96	60	140	`	`
1	1	001	Start of Header	33	21	041	!	!	65	41	101	A	A	97	61	141	a	a
2	2	002	Start of Text	34	22	042	"	"	66	42	102	B	B	98	62	142	b	b
3	3	003	End of Text	35	23	043	#	#	67	43	103	C	C	99	63	143	c	c
4	4	004	End of Transmission	36	24	044	$	\$	68	44	104	D	D	100	64	144	d	d
5	5	005	Enquiry	37	25	045	%	%	69	45	105	E	E	101	65	145	e	e
6	6	006	Acknowledgment	38	26	046	&	&	70	46	106	F	F	102	66	146	f	f
7	7	007	Bell	39	27	047	'	'	71	47	107	G	G	103	67	147	g	g
8	8	010	Backspace	40	28	050	((72	48	110	H	H	104	68	150	h	h
9	9	011	Horizontal Tab	41	29	051))	73	49	111	I	I	105	69	151	i	i
10	A	012	Line feed	42	2A	052	*	*	74	4A	112	J	J	106	6A	152	j	j
11	B	013	Vertical Tab	43	2B	053	+	+	75	4B	113	K	K	107	6B	153	k	k
12	C	014	Form feed	44	2C	054	,	,	76	4C	114	L	L	108	6C	154	l	l
13	D	015	Carriage return	45	2D	055	-	-	77	4D	115	M	M	109	6D	155	m	m
14	E	016	Shift Out	46	2E	056	.	.	78	4E	116	N	N	110	6E	156	n	n
15	F	017	Shift In	47	2F	057	/	/	79	4F	117	O	O	111	6F	157	o	o
16	10	020	Data Link Escape	48	30	060	0	0	80	50	120	P	P	112	70	160	p	p
17	11	021	Device Control 1	49	31	061	1	1	81	51	121	Q	Q	113	71	161	q	q
18	12	022	Device Control 2	50	32	062	2	2	82	52	122	R	R	114	72	162	r	r
19	13	023	Device Control 3	51	33	063	3	3	83	53	123	S	S	115	73	163	s	s
20	14	024	Device Control 4	52	34	064	4	4	84	54	124	T	T	116	74	164	t	t
21	15	025	Negative Ack.	53	35	065	5	5	85	55	125	U	U	117	75	165	u	u
22	16	026	Synchronous idle	54	36	066	6	6	86	56	126	V	V	118	76	166	v	v
23	17	027	End of Trans. Block	55	37	067	7	7	87	57	127	W	W	119	77	167	w	w
24	18	030	Cancel	56	38	070	8	8	88	58	130	X	X	120	78	170	x	x
25	19	031	End of Medium	57	39	071	9	9	89	59	131	Y	Y	121	79	171	y	y
26	1A	032	Substitute	58	3A	072	:	:	90	5A	132	Z	Z	122	7A	172	z	z
27	1B	033	Escape	59	3B	073	;	;	91	5B	133	[[123	7B	173	{	{
28	1C	034	File Separator	60	3C	074	<	<	92	5C	134	\	\	124	7C	174	|	
29	1D	035	Group Separator	61	3D	075	=	=	93	5D	135]]	125	7D	175	}	}
30	1E	036	Record Separator	62	3E	076	>	>	94	5E	136	^	^	126	7E	176	~	~
31	1F	037	Unit Separator	63	3F	077	?	?	95	5F	137	_	_	127	7F	177		Del