

Activity 4.1.1 - Binary to Decimal Conversion

Name: _____ Date: _____ Class: _____

Part 1: Using a conversion chart, convert each of the following binary numbers into its decimal equivalent.

EXAMPLE: 00000101 = 5

128	64	32	16	8	4	2	1
0	0	0	0	0	1	0	1
					4+		1 =

1. 00010111 = _____

Show your work:

128	64	32	16	8	4	2	1
0	0	0	1	0	1	1	1
			16+		4+	2+	1 =

2. 01010101 = _____

Show your work:

128	64	32	16	8	4	2	1
0	1	0	1	0	1	0	1

Now write out the conversion charts for yourself.

3. 10010010 = _____

Show your work:

4. 11111110 = _____

Show your work:

5. 01110101 = _____

Show your work:



Part 2: Convert each binary number to a decimal number. Look up the decimal number in the chart and fill in the corresponding letter.

Binary	Decimal	Letter
01000010		
01100101		
00100000		
01010011		
01101101		
01100001		
01010010		
01110100		

ASCII Chart				
A	65		a	97
B	66		b	98
C	67		c	99
D	68		d	100
E	69		e	101
F	70		f	102
G	71		g	103
H	72		h	104
I	73		i	105
J	74		j	106
K	75		k	107
L	76		l	108
M	77		m	109
N	78		n	110
O	79		o	111
P	80		p	112
Q	81		q	113
R	82		r	114
S	83		s	115
T	84		t	116
U	85		u	117
V	86		v	118
W	87		w	119
X	88		x	120
Y	89		y	121
Z	90		z	122
!	33			
space				32