Data Representation Worksheet

1. What symbols can we use to express values in binary?

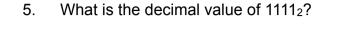   _____ and _____

2. What is the decimal value of 1010_2?

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

   _____

3. Complete the diagram below down so that it shows 74_{10}.

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

4. What is the decimal value of 00101101_2?

   _____

5. What is the decimal value of 1111_2?

   _____

6. What is the binary value of $18AF_{16}$?

   1   8   A   F

   _____

7. What is the value of 10001010_{2TC}?

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

   _____

8. What is the value of 118_{10} in a signed magnitude binary?

   _____

   (Hint: Read the question… are you sure you're right?)