Binary / Decimal Number Conversion

For each question number: pick a decimal (base-10) number, convert it into binary (base-2) then swap worksheets with another student. Can you convert the other student's number back into decimal? Did they convert your number correctly? Check your answer with them. Repeat with longer binary numbers.

Hint: to convert to decimal add together the column values if there is a 1 in the corresponding column.
            to convert to binary start with the left-most column, adding column values together to make your decimal value. If you use a column value to make up your number then place a 1 in that column, otherwise place a 0.

Column Values

??	??	16	8	4	2	1

		Binary					**Decimal**

		Binary						Decimal
Example 4-bit			1	0	1	1	8 + 2 + 1	11
1 4-bit								
2 5-bit								
3 5-bit								
4 6-bit								
5 7-bit								