

Task 4: Binary fractions

64	32	16	8	4	2	1		$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{16}$
1	0	1	0	1	0	0	.	1	0	0	1

represents: $64 + 16 + 4 + \frac{1}{2} + \frac{1}{16}$
 $= 84 + 0.5 + 0.0625$
 $= 84.5625$

Remember: $\frac{1}{4} = 0.25$
 $\frac{1}{8} = 0.125$
 $\frac{1}{16} = 0.0625$

Write the following as decimal numbers:

1	110.01	6.25	_____
2	10.11	2.75	_____
3	11.101	3.625	_____
4	1101.011	13.375	_____
5	11010.0011	26.1875	_____
6	10111.1001	23.5625	_____
7	110.111	6.875	_____
8	10101.0101	21.3125	_____

Write the following as binary numbers:

9	5.25	101.01	_____
10	$133/4$	10001.01	_____
11	$113/8$	1110.001	_____
12	35.5625	100011.1001	_____
13	42.625	101010.0001	_____
14	22.75	10110.11	_____
15	$147/8$	10010.011	_____
16	$693/16$	101011.0101	_____