Student Name:	Lab 1
Samantha Lopez-Montano	

1. The table below is in the wrong order. Draw a line from the term on the left, to the correct base on the right.

binary ——————— base 2
decimal ——————— base 16
hexadecimal ——————— base 10

2. Convert these numbers to the corresponding bases;

a)   (1100 1100)$_2$ = (204)$_{10}$

(annotated above: 7654 3210)

$$2^7 + 2^6 + 2^3 + 2^2$$
$$128 + 64 + 8 + 4 = 204$$

b)   (0000|1101|0111|1000)$_2$ = (0 D 7 8)$_{16}$

0 | D | 7 | 8

c)   (A05)$_{16}$ = (2 5 6 5)$_{10}$

$$A \times 16^2 + 5 \times 16^0$$
$$10 \times 256 + 5 \times 1$$
$$2560 + 5 = 2565$$

d)   (720)$_{10}$ = (2 D 0)$_{16}$

720 / 16   45   0
45 / 16   2   13 → D ↑
2 / 16   0   2

e)   (A15)$_{16}$ = (1010 0001 0101)$_2$

1010 | 0001 | 0101

f) $(55)_{10}$ = (0011   0111 $)_2$

55/2   27   1

27/2   13   l

13/2   6   1

6/2   3   0

3/2   1   1

1/2   0   1