Convert the following decimal numbers to hexadecimal (base 16). Then convert the hexadecimal numbers to binary. (Hint: Note that four binary bits is exactly sufficient to represent each of the 16 hexadecimal digits.)

a) 212_{10}

16/212
16/13 4
13 -> D

$D4_{16}$

b) 1477_{10}

16/1477
16/92 5
16/5 12 -> C
5

$5C5_{16}$

c) 15.247_{10}

For part c), obtain enough digits right of the radix point to obtain similar precision as the starting decimal value, if one were to convert your answer back to decimal.

15 -> F

.247
x 16
3.952
x 16
F <- 15.232
x 16
3.712

$F.3F3_{16}$