Hexadecimal Addition

$84F_{16} + 42EA_{16}$

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      8     4     F
+  4  2     E     A
_____
   4  B     3     9
```

1. Start from the smallest unit 1st place.

   F means 15 and A means 10.

   15 + 10 = 25   Convert 25 to hexadecimal:

   25 / 16 = 1 with **9** remainder   carry **1** to the next digit

2. Work on the second smallest place (i.e., the 16-value place)

   E means 14.

   1 + 4 + 14 = 19   Convert 19 to hexadecimal:

   19 / 16 = 1 with **3** remainder   carry **1** to the next digit

3. Work on the 16^2-value place.

   1 + 8 + 2 = 11 which is **B** in hexadecimal.

4. Work on the 16^3-value place.

   0 + 4 = 4

5. Check the answer:

   a. Convert 84F to decimal

   $8 \times 16^2 + 4 \times 16 + 15$

   $= 8 \times 256 + 64 + 15 = 2048 + 64 + 15 = 2127$

   b. Covert 42EA to decimal

   $4 \times 16^3 + 2 \times 16^2 + 14 \times 16 + 10$

   $= 4 \times 4096 + 2 \times 256 + 224 + 10 = 17130$

   c. 2127 + 17130 =19257

   d. Convert 19257 to hexadecimal

   $19257 \div 16 = 1203 \quad r = $ **9**

   $1203 \div 16 = 75 \quad r = $ **3**

   $75 \div 16 = 4 \quad r = 11$ which is **B**

   $4 \div 16 = 0 \quad r = $ **4**   The answer is **4B39**