Computer Number Systems - No Calculator

1. Computer Number Systems

What is the base10 equivalent for 1357_8?

$7+40+192+512=$
$47+704=751$

1. 751

2. Computer Number Systems

Which of the following is the largest number?

657_8 $1AD_{16}$ 430_{10}

$7+40+384$
$47+384$
431

$13+160+256$
$173+256$
429

2. 657_8

3. Computer Number Systems

Evaluate: $3275_8 + 4653_8 - 657_8$
Express the answer in octal.

$3275 + 4653 = 10150$

$10150 - 657 = 7271$

3. 7271_8

4. Computer Number Systems

How many binary numbers have more 1's than 0's in the range of numbers from 16 to 31 in base 10 inclusive?

16 10000
17 10001
18 10010
19 10011
20 10100
21 10101
22 10110
23 10111
24 11000
25 11001
26 11010
27 11011
28 11100
29 11101
30 11110
31 11111
32 100000

4. 19, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31.

5. Computer Number Systems

What is the sum of the decimal values of the red and the blue component for a color that is represented by the hexadecimal number $A85F1C_{16}$?

$A8 + 1C = C4$

$(12\times16)+4=192+4=196$

5. 196_{10} OR $C4_{16}$