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Analytical problems.

Decimal to Hexadecimal.

(1) $(2020)_{10}$ to $(7E4)_{16}$

16 | 2020
16 | 126 – 4
7 – 14

$\Rightarrow (7E4)_{16}$

(2) $(2020.65625)_{10}$ to $(\ )_{16}$

16 | 2020
16 | 126 – 4
7 – 14

7E

$0.65625 \times 16 = 10.5$

$0.5 \times 16 = 8$

A8

$\Rightarrow (7E.A8)_{16}$.

(3) $(172)_{10} \rightarrow (\ )_{16}$

16 | 172
10 – 12

$\Rightarrow (AC)_{16}$

(4) $(172.983)_{10} \rightarrow (\ )_{16}$

16 | 172
10 – 12

(AC)

$0.983 \times 16 = 15.7$

$0.7 \times 16 = 11.2$

$0.2 \times 16 = 3.2$

FB

$\Rightarrow (AC.FB)_{16}$

(4) $(49) \rightarrow (\ )_{16}$

16 | 49
3 – 1

= 31

$\Rightarrow (31)_{16}$

(5) $(122810)_{10} \rightarrow (\ )_{16}$

16 | 122810
16 | 7675 – 10
16 | 479 – 11
16 | 29 – 15
1 – B

$\Rightarrow (1BFBA)_{16}$

(6) $(60010)_{10} \rightarrow (\quad)_{16}$

16 | 60010
16 | 3750 – 10
16 | 234 – 6
14 – 10

$\Rightarrow (EA6A)_{16}$

(7) $(1542)_{10} \rightarrow (\quad)_{16}$

16 | 1542
16 | 96 – 6
6 – 0

$\Rightarrow (606)_{16}$

(8) $(175)_{10} \rightarrow (\quad)_{16}$

16 | 175
10 – 15

$\Rightarrow (AF)_{16}$

(9) $(105)_{10} \rightarrow (\quad)_{16}$

16 | 105
6 – 9

$\Rightarrow (69)_{16}$

(10) $(450)_{10} \rightarrow (\quad)_{16}$

16 | 450
16 | 28 – 2
1 – 12

$\Rightarrow (1C2)_{16}$

(11) $(199)_{10} \rightarrow (\quad)_{16}$

16 | 199
16 | 12 – 7
C

$\Rightarrow (C7)_{16}$

(12) $(3000)_{10} \rightarrow (\quad)_{16}$

16 | 3000
16 | 187 – 8
11 – 11

$\Rightarrow (BB8)_{16}$

(13) Convert Base 10 to Base 8

8 | 1032
8 | 129 – 0
8 | 16 – 1
2 – 0

$\Rightarrow (2010)_{8}$

(14) $(1032.6875)_{10} \rightarrow (\ )_8$

8 | 1032
8 | 129 – 0
8 | 16 – 1
2 – 0

$0.6875 \times 8 = 5.4$

$0.5 \times 8 = 4$

54

$\Rightarrow (2010.54)_8$.

(15) $(172)_{10} \rightarrow (\ )_8$

8 | 172
8 | 21 – 4
2 – 5

$\Rightarrow (172)_{10} \rightarrow (254)_8$.

(16) $(172.878)_{10} \rightarrow (\ )_8$.

8 | 172
8 | 21 – 4
2 – 5

$0.878 \times 8 = 7.0$

$\Rightarrow (254.7)_8$

(17) $(127)_{10} \rightarrow (\ )_8$

8 | 127
8 | 15 – 7
1 – 7

$= 177$

$\Rightarrow (127)_{10} \rightarrow (177)_8$.

IP address Identification:

(1) 10.250.1.1 → Belongs to Class A.

(2) 193.42.1.1 → Belongs to Class B.

(3) 249.240.80.78 → Belongs to Class E.

(4) 215.45.45.0 → Belongs to Class C.

(5) 33.0.0.0 → Belongs to Class A.

(6) 158.98.80.0 → Belongs to Class B.