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Solve the following short problems.

a. $(112)_8$ is equal to $(74)_{10}$

$2 + 8 + 64 = 74$

b. $(37.6)_8$ is equal to $(1F.C)_{16}$

(00011111.1100)
 $(1F.C)$

c. $(14.44)_{10}$ is equal to $(24.21)_5$

| | |
|----|---|
| 14 | |
| 2 | 4 |
| 0 | 2 |

= 2.4

$.44 * 5 = 2.2$
 $.2 * 5 = 1.0$
= 21

$\frac{24}{5} = 270$

= 24.21

d. The minimum number of bits needed to represent 123 elements in binary code is (7) bits.

e. If $(x2)_5 = (10110)_2$, then x is equal to (4)

$(22)_{10}$

| | |
|----|---|
| 22 | |
| 4 | 2 |
| 0 | 4 |

