Solution
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name

10 pts possible. Calculators are **not allowed** on this quiz.

1. (4 pts.) Using the Euclidean Algorithm, find gcd(150,336). Show your work.

$$150 \overline{)336} \quad 2$$
$$300$$
$$\overline{36} \overline{)150} \quad 4$$
$$144$$
$$6 \overline{)36} \quad 6$$
$$36$$
$$0$$

2. (6 pts.) a. Convert the following binary number to hexadecimal: 1011110110_{bin}. Show your work.

2F6hex

b. Convert the following decimal number to binary: 76. Show your work.

$$\begin{array}{r} 76 \\ -64 \\ \hline 12 \\ -8 \\ \hline 4 \end{array} \qquad 1001100_{bin}$$

c. Convert the following hexadecimal number to octal: $FB7_{hex}$. Show your work.

bin → $\underline{111}\,\underline{110}\,\underline{110}\,\underline{111}$

7 6 6 7oct