## Quiz Six MTH 213, Fall 2011

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## QUESTION 1. a) Convert (132) ${ }_{4}$ into base 16 .

b) Convert $(\underline{15} \quad \underline{12})_{16}$ to base 4 .
c) Find all integers in $Z$ with the following properties: i) if each integer is divided by 25 , the remainder is 11 . ii) if each integer is divided by 13 , the remainder is 1 . [Note that $(12)^{2}=1$ in $Z_{13}$ ]

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