

Midterm 2 Version 2 Solution

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Question 1

a.

$$100 \div 3 = 33, \text{ Remainder } \mathbf{1}$$

$$33 \div 3 = 11, \text{ Remainder } \mathbf{0}$$

$$11 \div 3 = 3, \text{ Remainder } \mathbf{2}$$

$$3 \div 3 = 1, \text{ Remainder } \mathbf{0}$$

$$1 \div 3 = 0, \text{ Remainder } \mathbf{1}$$

It follows from above that the ternary representation of 100 is $(10201)_3$.

Question 2

Question 3

Question 4