

CIS 3223 Homework 1

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Name:**Temple ID (last 4 digits:**

1 Multiply the following two binary numbers x and y using “grade school” binary multiplication (see notes).

$$x = 10111_2 \quad y = 110101_2$$

digit									1	1	0	1	0	1
1									1	1	0	1	0	1
1														

2 Determine the following:

(a) $4231 \pmod{19}$

(b) $-75 \pmod{19}$

(c) $19^7 \pmod{17}$

3 Apply the non-recursive **division algorithm** to find the quotient and remainder when 119 is divided by 7. **Show all steps.**

119 = _____ 2 quotient _____ remainder _____

[illegible]

Determine the following binary numbers (show all work):

exponent _____

Use the following table to convert the decimal part 0.17 into a binary number.

[illegible]