CIS	3223	Homework	1
OIO	0440	TIOILCWOIK	_

Name:

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Temple ID (last 4 digits:

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

$$x = 10111_2$$
 $y = 110101_2$

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

2 Determine the following:

	<i>(</i>)	1001	/ 1	10)	
((a)	4231	(mod	19	١

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

3	Apply the non-recursive divis	sion algorithm to f	ind the quotient and				
rema	remainder when 119 is divided by 7. Show all steps.						
	$119 = _{2}$	quotient	remainder				

digit	q	r	$r \ge 7$
	0	0	

4	Consider	the 16 bit floating point number	er $half(5.17)$ [float $16(5.17)$].
Dete	rmine the	following binary numbers (show	v all work):
inte	ger part		bits
expo	onent		

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

a	$a \ge 100$	rem	bit				
17							
	decimal part						

manitissa