Math 123-02
Spring 2026
Dr. Lily Yen

Assignment 2

Show all your work

Name: _____
Number: _____
Signature: _____
Score: ___/10

Problem 1: Translate the following Babylonian numeral to Hindu-Arabic numeral.

$36 \times 60^2 + 41 \times 60 + 52 = 132\,112$

Score: /2

Problem 2: Write 9987 as a Kaktovik numeral.

$9987 = 1 \times 8000 + 4 \times 400 + 19 \times 20 + 7 = 1 \times 20^3 + 4 \times 20^2 + 19 \times 20 + 7 =$

Score: /2

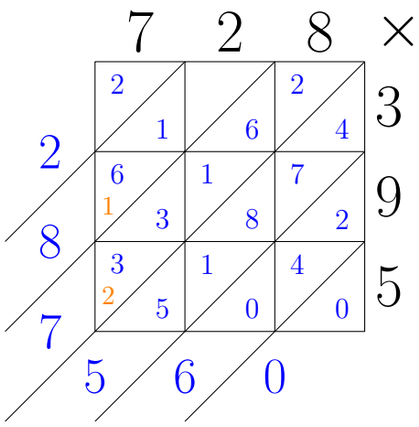
Problem 3: Express the Hindu-Arabic numeral 2463 in Mayan numeral.

$2463 = 6 \times (18 * 20) + 15 \times 20 + 3 =$

Score: /2

Problem 4: Multiply 728×395 using the galley method.

287 560



Score: /2

Problem 5: Fire Horse is arranging jelly beans on a table. When she lines them up 5 in a row, she has 3 left over. When she lines them up 7 in a row, she finds her last row short of 4 jelly beans to complete a row. If she has at least 60 jelly beans, find the smallest possible number of jelly beans she may have.

Say she has n rows of five. Then the total number of jelly beans is $5n + 3$. Similarly, if she has m rows of seven, the total is $7m - 4$. Therefore $5n + 3 = 7m - 4$, so $5n = 7m - 7 = 7(m - 1)$. We find also the least common multiple of 5 and 7 is 35. We will list both modular classes until the first match.

$5n + 3$	**3**	8	13	18	23	28	33	**38**	...
$7m - 4$	**3**	10	17	24	31	**38**	45	52	...
Matching	3	38	**73**	108	143	...			

Score: /2