

Numbers in other bases - practice

Sharpen your calculation skills in other bases

For reference, our convention for base-26 is to use the letters $A - Z$ as the digits $0 - 25$:

A	B	C	D	E	F	G	H	I	J	K	L	M
0	1	2	3	4	5	6	7	8	9	10	11	12
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
13	14	15	16	17	18	19	20	21	22	23	24	25

Instructions: Calculate the sum, difference, product, or quotient and remainder. Your answer should be in the starting base unless otherwise specified.

Question 1

$$(143)_7 + (53)_7$$

Hint: Just like with base-10 addition, you'll sometimes have to carry a digit. Here, the digits are 0, 1, 2, 3, 4, 5, 6.

What is $4 + 5$ in base-10?

What is its base-7 representation?

What digit do you have to carry to the next step?

Question 2

$$(4671)_8 + (327)_8$$

Question 3

$$(APPLE)_{26} + (WINDOWS)_{26}$$

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Question 4

$$(451)_9 - (332)_9$$
