HW1.8. Base Conversion (Randomized, Challenge, Optional)

This question is completely optional and just serves as an additional *fun* challenge. You don't get any credit answering this question.

To demonstrate base conversion mastery, convert the given numbers written in *any* arbitrary base into another representation using another arbitrary base.

Tip: Since the bases are arbitrary and are not direct powers of each other, the methodical way of approaching this problem is by converting the given number into base-10 (decimal) first, then converting that decimal number into the desired base.

For bases greater than 9, use A to represent 10, B to represent 11, and so on (increasing values in alphabetical order). Letters should be written in uppercase.

It might be helpful to write out the corresponding weights for each letter in the alphabet as you answer this problem.

n:	0	1	2	3	4
16^n:	1	16	256		
29^n:	1	29	841		
20^n:	1	20	400		
15^n:	1	15	225		
5^n:	1	5	25	125	

What is 118_{18} in base 16? $18\wedge2+18+8=350$

15E	?

What is $1C2_{13}$ in base 29? $13\wedge2+12*13+2=327$

B8	?

What is CM_{25} in base 20? $12*25+22=322$

G2	?

What is 354_9 in base 15? $3*81+5*9+4=292$

147	?

What is 179_{17} in base 5? $17\wedge2+7*17+9=417$

3132	?

Save & Grade *20 attempts left*   **Save only**   *Additional attempts available with new variants* ?

Question

Value: 0

History: 0 0

Awarded points: 0/0

Report an error in this question ☐

Previous question

Next question

📎 Attached files

No attached files

Attach a file ☐
Attach text ☐