

Name \_\_\_\_\_

1a. Construct multiplication and addition tables in base five.

1b. Construct multiplication and addition tables in base seven.

2a. Use the following tables to multiply  $3202 \times 213$  in base four.

+	1	2	3		*	1	2	3
1	2	3	10		1	1	2	3
2	3	10	11		2	2	10	12
3	10	11	12		3	3	12	21

2b. Translate problem 2a and its solution to base ten and verify the solution.

3a. Use the tables constructed in 1b to multiply  $524 \times 206$  in base seven.

3b. Translate problem 3a and its solution to base ten and verify the solution.

4. Count from one to twenty seven in base three.

5. Write the following binary integers in base four, eight, and sixteen.

	four	eight	sixteen
101101001	_____	_____	_____
11110100	_____	_____	_____
111111111111	_____	_____	_____
1	_____	_____	_____

6. Convert the following:

$$5243_{\text{seven}} = \text{_____}_{\text{ten}}$$

$$2110_{\text{three}} = \text{_____}_{\text{ten}}$$

$$B42_{\text{twelve}} = \text{_____}_{\text{ten}}$$

$$220_{\text{three}} = \text{_____}_{\text{nine}}$$

$$13D9_{\text{sixteen}} = \text{_____}_{\text{two}}$$

$$73619_{\text{ten}} = \text{_____}_{\text{twelve}}$$

$$911_{\text{ten}} = \text{_____}_{\text{four}}$$