
Section 4.3: Operations in different bases

1. Find the following:

$$\begin{array}{r} \text{a)} \quad 3426_{\text{seven}} \\ + 635_{\text{seven}} \end{array}$$

$$\begin{array}{r} \text{b)} \quad 2351_{\text{seven}} \\ - 526_{\text{seven}} \end{array}$$

$$\begin{array}{r} \text{c)} \quad 4312_{\text{five}} \\ + 2434_{\text{five}} \end{array}$$

$$\begin{array}{r} \text{d)} \quad 7T9E_{\text{twelve}} \\ + 8ET6_{\text{twelve}} \end{array}$$

$$\begin{array}{r} \text{e)} \quad 63F4_{\text{sixteen}} \\ - 3B9E_{\text{sixteen}} \end{array}$$

$$\begin{array}{r} \text{f)} \quad 5374_{\text{nine}} \\ - 2687_{\text{nine}} \end{array}$$

2. Complete the following multiplication table in base seven.

\times	0	1	2	3	4	5	6
0							
1							
2							
3							
4							
5							
6							

3. Using the table in (3), find the following:

a)
$$\begin{array}{r} 425_{\text{seven}} \\ \times 62_{\text{seven}} \end{array}$$

b)
$$\begin{array}{r} 324_{\text{seven}} \\ \times 256_{\text{seven}} \end{array}$$

4. Using the table in (3), find the following:

(a) $26_{\text{seven}} \div 5_{\text{seven}} =$

(b) $24_{\text{seven}} \div 3_{\text{seven}} =$

(c) $2256_{\text{seven}} \div 5_{\text{seven}} =$

(d) $22641_{\text{seven}} \div 3_{\text{seven}} =$

(e) $243621_{\text{seven}} \div 4_{\text{seven}} =$