

# Number Bases – Review Sheet #1

1) Convert each octal number into decimal:

- a)  $24_{\text{oct}}$
- b)  $10_{\text{oct}}$
- c)  $100_{\text{oct}}$
- d)  $1000_{\text{oct}}$
- e)  $10000_{\text{oct}}$
- f)  $325_{\text{oct}}$
- g)  $10025_{\text{oct}}$

2) Convert each decimal number into octal:

- a)  $10_{\text{dec}}$
- b)  $100_{\text{dec}}$

c)  $183_{\text{dec}}$

d)  $923_{\text{dec}}$

e)  $395_{\text{dec}}$

f)  $4300_{\text{dec}}$

**Do the indicated arithmetic.**

(You may use your octal multiplication table, if needed.)

3) 
$$\begin{array}{r} 32_{\text{oct}} \\ +24_{\text{oct}} \\ \hline \end{array}$$

4) 
$$\begin{array}{r} 36_{\text{oct}} \\ +13_{\text{oct}} \\ \hline \end{array}$$

5) 
$$\begin{array}{r} 473_{\text{oct}} \\ +467_{\text{oct}} \\ \hline \end{array}$$

6) 
$$\begin{array}{r} 65_{\text{oct}} \\ -23_{\text{oct}} \\ \hline \end{array}$$

7) 
$$\begin{array}{r} 63_{\text{oct}} \\ -25_{\text{oct}} \\ \hline \end{array}$$

8) 
$$\begin{array}{r} 634_{\text{oct}} \\ -317_{\text{oct}} \\ \hline \end{array}$$

9) 
$$\begin{array}{r} 6034_{\text{oct}} \\ -2037_{\text{oct}} \\ \hline \end{array}$$

10) 
$$\begin{array}{r} 27_{\text{oct}} \\ \times 4_{\text{oct}} \\ \hline \end{array}$$

11) 
$$\begin{array}{r} 57_{\text{oct}} \\ \times 63_{\text{oct}} \\ \hline \end{array}$$

12) 
$$\begin{array}{r} 547_{\text{oct}} \\ \times 333_{\text{oct}} \\ \hline \end{array}$$

13) 
$$\begin{array}{r} 362_{\text{oct}} \\ \times 563_{\text{oct}} \\ \hline \end{array}$$

# Number Bases – Review Sheet #2

1) Convert each octal number into decimal:

- a)  $11_{\text{oct}}$
- b)  $34_{\text{oct}}$
- c)  $57_{\text{oct}}$
- d)  $103_{\text{oct}}$
- e)  $270_{\text{oct}}$
- f)  $23005_{\text{oct}}$

2) Convert each number into *standard decimal form*:

- a)  $3.0 \cdot 10^8$
- b)  $6.2 \cdot 10^{-8}$

3) Convert each number into *scientific notation*:

- a) 537
- b) 0.000009

4) Convert each decimal number into octal:

- a)  $16_{\text{dec}}$
- b)  $66_{\text{dec}}$
- c)  $512_{\text{dec}}$
- d)  $208_{\text{dec}}$
- e)  $490_{\text{dec}}$

f)  $17969_{\text{dec}}$

**Do the indicated arithmetic.**

(You may use your octal multiplication table, if needed.)

$$\begin{array}{r} 5) \quad 57_{\text{oct}} \\ \quad +26_{\text{oct}} \\ \hline \end{array}$$

$$\begin{array}{r} 6) \quad 365_{\text{oct}} \\ \quad +174_{\text{oct}} \\ \hline \end{array}$$

$$\begin{array}{r} 7) \quad 33_{\text{oct}} \\ \quad -17_{\text{oct}} \\ \hline \end{array}$$

$$\begin{array}{r} 8) \quad 602_{\text{oct}} \\ \quad -247_{\text{oct}} \\ \hline \end{array}$$

$$\begin{array}{r} 9) \quad 34_{\text{oct}} \\ \quad \times 53_{\text{oct}} \\ \hline \end{array}$$

$$\begin{array}{r} 10) \quad 356_{\text{oct}} \\ \quad \times 406_{\text{oct}} \\ \hline \end{array}$$

11) *Challenge!*  
 $42634_{\text{oct}} \div 54_{\text{oct}}$