

ICT Homework 3
Numbering Systems

Add the following BASE_{16} numbers:

- | | | | | |
|----------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|
| 1. $\begin{array}{r} 3A8 \\ \underline{6C3} \end{array}$ | 2. $\begin{array}{r} 4E03 \\ \underline{578C} \end{array}$ | 3. $\begin{array}{r} EFF7 \\ \underline{C3F} \end{array}$ | 4. $\begin{array}{r} 108BF \\ \underline{E0A57} \end{array}$ | 5. $\begin{array}{r} AFF \\ \underline{\quad 3} \end{array}$ |
|----------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|

Add the following BASE_8 numbers:

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|------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------|
| 6. $\begin{array}{r} 5604 \\ \underline{7527} \end{array}$ | 7. $\begin{array}{r} 3321 \\ \underline{6743} \end{array}$ | 8. $\begin{array}{r} 40665 \\ \underline{53246} \end{array}$ | 9. $\begin{array}{r} 55 \\ \underline{\quad 5} \end{array}$ | 10. $\begin{array}{r} 50563 \\ \underline{34216} \end{array}$ |
|------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------|

Convert the following:

- | | |
|---------------------------------------------------|------------------------------------------------------|
| 11. $39876_{10} = \underline{\hspace{2cm}}_7$ | 15. $73105_8 = \underline{\hspace{2cm}}_2$ |
| 12. $406321_{10} = \underline{\hspace{2cm}}_{13}$ | 16. $101011011101_2 = \underline{\hspace{2cm}}_{13}$ |
| 13. $40301_5 = \underline{\hspace{2cm}}_{10}$ | 17. $EC07D_{16} = \underline{\hspace{2cm}}_2$ |
| 14. $A5C7_{14} = \underline{\hspace{2cm}}_{10}$ | 18. $1101110110111_2 = \underline{\hspace{2cm}}_8$ |

Convert:

1. $101101010101_2 = \underline{\hspace{2cm}}_{16}$

2. $2587_{10} = \underline{\hspace{2cm}}_2$

3. $10111000110_2 = \underline{\hspace{2cm}}_8$

4. $1001110_2 = \underline{\hspace{2cm}}_{10}$

5. $AC6F9_{16} = \underline{\hspace{2cm}}_8$

6. $D897_{16} = \underline{\hspace{2cm}}_8$

Add the following:

7.
$$\begin{array}{r} EB08E \\ \underline{7A34}_{16} \end{array}$$

8.
$$\begin{array}{r} 367750 \\ \underline{36434}_8 \end{array}$$

Bonus:
$$\begin{array}{r} 3456 \\ 6543 \\ 4444 \\ 5172 \\ \underline{7777}_8 \end{array}$$