Computer Programming I — Homework Assignment #2

**1.** Write a C**++** program that reads in a positive decimal integer of at most 8 digits and prints its binary and octal equivalents. The screen dialog should appear as follows:

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| **Enter a positive decimal integer** **of at most 8 digits: 251**  **The binary equivalent of 251 is 11111011**  **The octal equivalent of 251 is 373**  **請按任意鍵繼續 . . .** |

**2.** Write a program that reads in a positive decimal integer of at most 8 digits and prints the sum of all its digits. The screen dialog should appear as follows:

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| **Enter a positive integer of at most 8 digits: 27463**  **The sum of all digits of 27463 is 22**  **請按任意鍵繼續 . . .** |

**3.** A three digits number *n* = *abc* is an Armstrong number if *n* = *a*3 + *b*3 + *c*3. For example, 153 = 1 + 125 + 27 = 13 + 53 + 33, so 153 is an Armstrong number. Write a program that prints all Armstrong numbers of three digits. The screen dialog should appear as follows:

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| **all Armstrong numbers of three digits:**  **153 370 371 407**  **請按任意鍵繼續 . . .** |

**4.** UVa 10055 - Hashmat the brave warrior.

**5.** UVa 12149 - Feynman.