Computer Programming I — Homework Assignment #1

**1.** Write a program that reads in three distinct integers and determines and prints the median of these integers. The screen dialog should appear as follows:

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| **Enter three distinct integers: 22 8 78**  **Median is 22** |

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| **Enter three distinct integers: 78 22 8**  **Median is 22** |

**2.** Write a program that reads in three distinct integers and prints these numbers in ascending order. The screen dialog should appear as follows:

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| **Enter three distinct integers: 73 28 52**  **These numbers in ascending order: 28 52 73** |

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| **Enter three integers: 98 69 34**  **These numbers in ascending order: 34 69 98** |

**3.** Write a program that inputs a five-digit positive integer, and prints the digits in the reverse order. The screen dialog should appear as follows:

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| **Enter a 5-digit positive integer: 42339**  **The digits in the reverse order : 93324** |

**4.** Write a program that reads in a positive integer less than 32 and prints its binary equivalent. The screen dialog should appear as follows:

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| **Enter a positive integer less than 32: 31**  **The binary equivalent of 31 is 11111** |

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| **Enter a positive integer less than 32: 10**  **The binary equivalent of 10 is 01010** |

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| **Enter a positive integer less than 32: 1**  **The binary equivalent of 1 is 00001** |

**5.** Write a program that reads in a year as an integer and determines whether it is a leap year or not. (A year is a leap year if it is divisible by 4 but not divisible by 100, or is divisible by 400.) The screen dialog should appear as follows:

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| **Enter a year ( 1583-3000 ): 2016**  **Year 2016 is a leap year.** |

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| **Enter a year ( 1583-3000 ): 1900**  **Year 1900 is a common year.** |

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| **Enter a year ( 1583-3000 ): 2000**  **Year 2000 is a leap year.** |

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| **Enter a year ( 1583-3000 ): 2022**  **Year 2022 is a common year.** |