**Computer Science 2**   **Lab # 01**



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**CS2 Section # 01**

**Due:** Problem A by the **end of the lab** and Problems B by the end of **Saturday** of the same week.

**TOPIC: Review of complete Java programs, standard I/O, If-Else**

**Project A: Minute Conversion**

**Problem Description:**

Write a program that prompts the user to enter a number of minutes and then calculate how many years and days it will be equivalent to, then print it out these results as shown below.

Here are sample runs of the program:

Sample 1:

Enter the number of minutes: **10000**

10000 minutes is approximately 0 years and 6 days

Sample 2:

Enter the number of minutes: **1234567**

1234567 minutes is approximately 2 years and 127 days

Sample 3:

Enter the number of minutes: **123456789**

123456789 minutes is approximately 234 years and 323 days

**Analysis:**

(Describe the problem including input and output in your own words. Type your answer in the following with **BLUE font color**)

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| **The user will input the number of minutes that they would like to convert to approximately the amount of years and days, which would be the output.**  **Input: Number of minutes**  **Output: Approximation of years and days.** |

**Design:**

(Describe the major steps for solving the problem. Type your answer in the following with **BLUE font color**)

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| 1. **A scanner input would have to be created to receive an input from the user.** 2. **Formula to convert minutes into years and days.** |

**Coding:** (Copy and Paste Source Code here. Type your answer in the following with **BLUE font color**)

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| **import java.util.Scanner;**  **public class MinConversion{**  **public static void main(String[] args){**  **Scanner input= new Scanner(System.in);**  **System.out.print("Enter the number of minutes: ");**  **int min= input.nextInt();**  **int days= min/(60\*24);**  **int years= days/365;**  **int rem= days%365;//rem is remaining days**  **System.out.println(min+" minutes is approximately "+years+" years and "+ rem+" days");**  **}**  **}** |

**Testing:** (Describe how you test this program. Type your answer in the following with **BLUE font color**)

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| **RUN three times, using …**  **Test 1:**  **Enter the number of minutes: 10000**  **10000 minutes is approximately 0 years and 6 days**  **Test 2:**  **Enter the number of minutes: 150000**  **1234567 minutes is approximately 0 years and 104 days**  **Test 3:**  **Enter the number of minutes: 1450000**  **123456789 minutes is approximately 2 years and 276 days** |