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



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**CS2 Section # 03**

**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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| **Create a program that will ask the user to input any number of minutes, my program has to calculate the amount of hours and days it (the input) is equivalent to. My output is the result of how many years and days the input is equivalent to.** |

**Design:**

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

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| **1) import scanner to allow the user to input the number of minutes. Save the input as its own variable.**  **2) convert the minutes into hours, days and years. There are 525,600 minutes in a year and 1,440 minutes in a day.**  **3) print the results**  **…** |

**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 MinuteConversion {**  **public static void main(String[] args) {**  **Scanner input = new Scanner(System.in);**  **// ask user for input**  **System.out.print("Enter the number of minutes: ");**  **int minutes = input.nextInt();**  **// calculate the number of years and days**  **int years = minutes / 525600;**  **int days = (minutes % 525600) / 1440;**  **// print results**  **System.out.println(minutes + " minutes is approximately " + years + " years and " + days + " 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: 1234567**  **1236549 minutes is approximately 2 years and 127 days**  **Test 3:**  **Enter the number of minutes: 123456789**  **123456789 minutes is approximately 234 years and 323 days** |