**Q1.**

// Inputs the distance user lives away from MCTC and outputs a message accordingly

import java.util.Scanner;

public class MilesFromMCTC {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("How many miles do you live from MCTC? ");

double distance = scanner.nextDouble();

if (distance > 10) {

System.out.println("You live more than 10 miles from MCTC");

} else if (distance == 10) {

System.out.println("You live exactly 10 miles from MCTC");

} else {

System.out.println("You live less than 10 miles from MCTC");

}

}

}

**Q2.**

/\* The program is a quiz app that has the answer ‘pong’ to the specific question mentioned and this is to be implemented

If answer equals ‘pong’, we mark it correct or else as false \*/

package week\_1;

import static input.InputUtils.stringInput;

/\*\*

\*

\* Finish the method that checks if the answer to the quiz question is correct.

\*

\* You should accept answers in any case, but the spelling and spacing must be correct.

\*

\* (Tip: the answer is "Pong" https://en.wikipedia.org/wiki/Pong)

\*

\*/

public class Question\_2\_Quiz\_Question {

public static void main(String[] args) {

System.out.println("Quiz time!");

System.out.println("What is the name of the classic 1972 arcade game based on table tennis?");

String answer = stringInput("Enter your answer: ");

boolean correct = checkAnswer(answer);

if (correct) {

System.out.println("You are correct!");

} else {

System.out.println("Sorry, the answer is Pong.");

}

}

public static boolean checkAnswer(String answer) {

// Check that the user's answer is "Pong" in any letter case.

// Case doesn't matter, so "pong" or "PONG" or any other variation in case is the correct answer.

// Remember that using == to compare Strings may not do what you expect it to do!

return answer.equalsIgnoreCase("pong");

}

}

**Q3.**

/\* Inputs height of user and if he could swim 75 yards or not and yields whether he is eligible for being an astronaut or not \*/

import java.util.Scanner;

public class NASAApplication {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("What is your height in inches? ");

int height = scanner.nextInt();

System.out.print("Can you swim at least 75 yards? (yes/no) ");

String canSwim = scanner.next();

if (height >= 58 && height <= 76 && canSwim.equalsIgnoreCase("yes")) {

System.out.println("Congratulations! You have potential as a NASA astronaut.");

} else {

System.out.println("Sorry, you do not meet the requirements to become a NASA astronaut.");

}

}

}

**Q3 (Alternative) (Nested If used).**

/\* Inputs height of user and if he could swim 75 yards or not and yields whether he is eligible for being an astronaut or not \*/

import java.util.Scanner;

public class NASAApplication {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("What is your height in inches? ");

int height = scanner.nextInt();

System.out.print("Can you swim at least 75 yards? (yes/no) ");

String canSwim = scanner.next();

if (height >= 58 && height <= 76 && canSwim.equalsIgnoreCase("yes")) {

System.out.println("Congratulations! You have potential as a NASA astronaut.");

} else {

System.out.println("Sorry, you do not meet the requirements to become a NASA astronaut.");

}

}

}

**Q4.**

// Calculates USPS mail prices depending on shape and flatness of a letter

import java.util.Scanner;

public class USPSLetterCostCalculator {

public static void main(String[] args) {

final double RECTANGULAR\_LETTER\_COST = 0.49;

final double NON\_MACHINABLE\_SURCHARGE = 0.21;

Scanner scanner = new Scanner(System.in);

System.out.println("Is your letter rectangular? Enter Y for yes, N for no: ");

String isRectangularStr = scanner.nextLine();

boolean isRectangular = isRectangularStr.equalsIgnoreCase("Y");

System.out.println("Is your letter flat? Enter Y for yes, N for no: ");

String isFlatStr = scanner.nextLine();

boolean isFlat = isFlatStr.equalsIgnoreCase("Y");

double cost = RECTANGULAR\_LETTER\_COST;

if (!isRectangular || !isFlat) {

cost += NON\_MACHINABLE\_SURCHARGE;

}

System.out.println("The cost to mail your letter is $" + cost);

}

}

**Q5.**

// Calculates shipping cost of the parcel depending on its weight and a cap of 30lb

import java.util.Scanner;

public class ParcelShipping {

public static void main(String[] args) {

Scanner input = new Scanner(System.in);

System.out.print("Enter the weight of the parcel in pounds: ");

double weight = input.nextDouble();

double cost = 0;

if (weight > 0 && weight <= 10) {

cost = weight \* 2.15;

} else if (weight > 10 && weight <= 20) {

cost = 10 \* 2.15 + (weight - 10) \* 1.55;

} else if (weight > 20 && weight <= 30) {

cost = 10 \* 2.15 + 10 \* 1.55 + (weight - 20) \* 1.15;

} else {

System.out.println("The parcel cannot be shipped.");

return;

}

System.out.printf("The shipping cost for a %.2f-pound parcel is $%.2f.\n", weight, cost);

}

}

**Q6.**

// Inputs PC specs and yields if it is eligible for WINDOWS UPDATE or not

import java.util.Scanner;

public class Windows10Upgrade {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

// Ask the user for their operating system version, CPU speed, and RAM

System.out.print("What version of Windows do you have installed (7 or 8)? ");

int osVersion = scanner.nextInt();

System.out.print("What is your CPU speed (in GHz)? ");

double cpuSpeed = scanner.nextDouble();

System.out.print("How much RAM do you have (in GB)? ");

int ram = scanner.nextInt();

// Determine if the computer meets the requirements for Windows 10

boolean meetsRequirements = ((osVersion == 7 || osVersion == 8) && cpuSpeed >= 1 && ram >= 2);

// Display a message to the user indicating if they can upgrade to Windows 10

if (meetsRequirements) {

System.out.println("Your computer meets the requirements to upgrade to Windows 10.");

} else {

System.out.println("Your computer does not meet the requirements to upgrade to Windows 10.");

}

}

}