# Lab: Simple Conditional Statements

Submit your solutions here: <https://judge.softuni.org/Contests/4395/Simple-Conditional-Statements-Lab>

## Freezing Weather

Write a program to **check for freezing water**, that:

* Reads **an integer number** (temperature in Celsius)
* Checks whether the temperature is **below zero**
* Prints "**Freezing weather!**", if the temperature is **equal or smaller than 0**

**int tempC=int.Parse(Console.ReadLine());**

if (tempC <= 0) Console.WriteLine("Freezing weather!");

### Example

|  |  |
| --- | --- |
| **Input** | **Output** |
| 4 | *(no output)* |
| -2 | Freezing weather! |

## Even or Odd

Write a program, that:

* Reads an **integer number**
* Check the number
  + If it's **even**, prints "**even**"
  + If it's **odd**, prints "**odd**"

int number=int.Parse(Console.ReadLine());

if (number % 2 == 0)

{

Console.WriteLine("even");

}

else

{

Console.WriteLine("odd");

}

### Example

|  |  |
| --- | --- |
| **Input** | **Output** |
| 4 | even |
| 7 | odd |

## Number 1…9 as Words

Write a program to **print a number as words**, that:

* Reads an **integer number**
* Check number's value is in range **[1 … 9]**
* Print:
  + "**one**" – if the number is **1**
  + "**two**" – if the number is **2**
  + "**three**" – if the number is **3**
  + "**four**" – if the number is **4**
  + "**five**" – if the number is **5**
  + "**six**" – if the number is **6**
  + "**seven**" – if the number is **7**
  + "**eight**" – if the number is **8**
  + "**nine**" – if the number is **9**
  + "**Out of range**" - if the number is **out of range**

**int number=int.Parse(Console.ReadLine());**

if (number == 1) { Console.WriteLine("one"); }

else if (number == 2) { Console.WriteLine("two"); }

else if (number == 3) { Console.WriteLine("three"); }

else if (number == 4) { Console.WriteLine("four"); }

else if (number == 5) { Console.WriteLine("five"); }

else if (number == 6) { Console.WriteLine("six"); }

else if (number == 7) { Console.WriteLine("seven"); }

else if (number == 8) { Console.WriteLine("eight"); }

else if (number == 9) { Console.WriteLine("nine"); }

else { Console.WriteLine("out of range"); }

### Example

|  |  |
| --- | --- |
| **Input** | **Output** |
| 7 | seven |
| 10 | Out of range |
| 2 | two |

## Greater Number

Write a program, that:

* Reads **two integer numbers**
* Finds the **greater number**
* Prints "**Greater number: {greater number value}**"

int number1=int.Parse(Console.ReadLine());

int number2=int.Parse(Console.ReadLine());

if (number1 > number2) { Console.WriteLine($"Greater number: {number1}");

}

else if (number2 > number1)

{

Console.WriteLine($"Greater number: {number2}"); }

### Example

|  |  |
| --- | --- |
| **Input** | **Output** |
| 5  8 | Greater number: 8 |
| 10  1 | Greater number: 10 |

## Guess the Password

Write a program for **checking a password**, that:

* Reads a **string** that represents a **password**
* Prints:
  + "**Welcome**" if the password is "**s3cr3t!**"
  + "**Wrong password!**" in all other cases

string pass = (Console.ReadLine());

if (pass == "s3cr3t!")

{

Console.WriteLine("Welcome");

}

else

{ Console.WriteLine("Wrong password!"); }

### Example

|  |  |
| --- | --- |
| **Input** | **Output** |
| s3cr3t! | Welcome |
| qwerty | Wrong password! |

## Boiling Water

Write a program to **check for boiling water**, that:

* + Reads an **integer** **number:** the water temperature (in °C)
  + Prints:
    - * "**The water is boiling**" if the **number > 100**
      * "**The water is not hot enough**" in all other cases

int tempC=int.Parse(Console.ReadLine());

if (tempC > 100)

{

Console.WriteLine("The water is boiling");

}

else

{

Console.WriteLine("The water is not hot enough");

}

### Example

|  |  |
| --- | --- |
| **Input** | **Output** |
| 104 | The water is boiling |
| 29 | The water is not hot enough |

## Speed Info

Write a program that:

* Reads a **floating-point number (speed)**
* Prints:
  + "**Slow**" - if the **number <= 30**
  + "**Fast**" - if the **number > 30**

double speed=int.Parse(Console.ReadLine());

if (speed <= 30)

{

Console.WriteLine("Slow");

}

else

{

Console.WriteLine("Fast");

}

### Example

|  |  |
| --- | --- |
| **Input** | **Output** |
| 30 | Slow |
| 60.4 | Fast |

## Ticket Price

Write a program to **calculate ticket price**, that:

* Reads a **ticket type (string)**: either "**student**" or "**regular**"
* Prints the price in the following format **"${price}"**:
  + **Student** ticket price: **1.00**
  + **Regular** ticket price: **1.60**
  + For **invalid** type: "**Invalid ticket type!**"

### Example

|  |  |
| --- | --- |
| **Input** | **Output** |
| student | $1.00 |
| regular | $1.60 |
| adult | Invalid ticket type! |

string ticketPrice = (Console.ReadLine());

string student = "1.00";

string regular = "1.60";

if ( ticketPrice == "student")

{

Console.WriteLine($"${student}");

}

else if(ticketPrice == "regular")

{

Console.WriteLine($"${regular}");

}

else

{

Console.WriteLine("Invalid ticket type!");

}

## Area of Figures

Write a program to **calculate figure area**, that:

* Reads the **type of the figure** (string): "**square**", "**rectangle**" and "**circle**"
* Read:
  + If the figure is **square**: read **one floating-point number**, representing side of the square
  + If the figure is **rectangle**: read **two floating-point numbers**, representing **width** and **length** of the rectangle
  + If the figure is **circle**: read **one floating-point number**, representing **radius** of the circle
* Calculate area of the given figure
  + If the figure is square: **area = side \* side**
  + If the figure is rectangle: **area = width \* length**
  + If the figure is circle: **area = pi \* radius \* radius**
* Prints the **calculated area**, formatted to the 2nd decimal

string figType =(Console.ReadLine());

if (figType == "square")

{

double side = double.Parse(Console.ReadLine());

double area = side \* side;

Console.WriteLine($"{area:F2}");

}

else if (figType == "rectangle")

{

double width = double.Parse(Console.ReadLine());

double lenght = double.Parse(Console.ReadLine());

double rectArea = width \* lenght;

Console.WriteLine($"{rectArea:f2}");

}

else if (figType == "circle")

{

double radCircle = double.Parse(Console.ReadLine());

double circleArea = Math.PI \* radCircle \* radCircle;

Console.WriteLine($"{circleArea:f2}");

}

### Example

|  |  |
| --- | --- |
| **Input** | **Output** |
| square  5 | 25.00 |
| rectangle  5  4 | 20.00 |
| circle  3 | 28.27 |

## Valid Triangle

Write a program to **check whether a triangle is valid**, which:

* Reads **three integers**: the **sides** of a **triangle**
* Checks if each **side** is **shorter** than the **sum** of the **other two**
* Prints:
  + "**Valid Triangle**" if the above condition is met
  + "**Invalid Triangle**" otherwise

int sideA=int.Parse(Console.ReadLine());

int sideB=int.Parse(Console.ReadLine());

int sideC=int.Parse(Console.ReadLine());

if (sideA + sideB > sideC && sideC + sideA > sideB && sideB + sideC > sideA) {

Console.WriteLine("Valid Triangle");

}

else

{

Console.WriteLine("Invalid Triangle");

}

### Example

|  |  |
| --- | --- |
| **Input** | **Output** |
| 3  4  5 | Valid Triangle |
| 5  5  20 | Invalid Triangle |

## Coffee Shop

Write a program to calculate the price for a drink, which:

* Reads a **drink name**: either "**coffee**" or "**tea**"
* Reads an **extra**: either "**sugar**" or "**no**"
* Prices are:
  + Coffee: **$1.00**
  + Tea: **$0.60**
  + Sugar: **$0.40**
* Prints the price, formatted to the **2nd decimal**: **"Final price: ${price}"**

string drinkName = Console.ReadLine();

string sugOrNo = Console.ReadLine();

double cofeePrice = 1.00;

double teaPrice = 0.60;

double sugarPrice = 0.40;

double noPrice = 0.00;

if (drinkName == "coffee" && sugOrNo == "sugar")

{

double cofeeSug = cofeePrice + sugarPrice;

Console.WriteLine($"Final price: ${cofeeSug:F2}");

}

else if (drinkName == "coffee" && sugOrNo == "no")

{

double cofeeNo = cofeePrice + noPrice;

Console.WriteLine($"Final price: ${cofeeNo:F2}");

}

else if (drinkName == "tea" && sugOrNo == "sugar")

{

double teaSug = teaPrice + sugarPrice;

Console.WriteLine($"Final price: ${teaSug:F2}");

}

else if (drinkName == "tea" && sugOrNo == "no")

{

Console.WriteLine($"Final price: ${teaPrice:F2}");

}

### Example

|  |  |
| --- | --- |
| **Input** | **Output** |
| coffee  sugar | Final price: $1.40 |
| tea  no | Final price: $0.60 |