

1.

IPO Chart Information	C# Statements
<p>Input: averageLength numberOfHouses</p> <p>Processing: multiply</p> <p>Output: totalLength</p> <p>Algorithm:</p> <ol style="list-style-type: none"> 1. Prompt for averageLength 2. Accept averageLength 3. Prompt for numberOfHouses 4. Accept numberOfHouses 5. Calculate the totalLength by multiplying averageLength by numberOfHouses 6. Display totalLength 	<pre>//Input double averageLength; double numberOfHouses; //Processing double multiply; //Output double totalLength; //Algorithm Console.WriteLine("Enter the average length"); averageLength = Convert.ToDouble(Console.ReadLine()); Console.WriteLine("Enter the number of houses"); numberOfHouses = Convert.ToDouble(Console.ReadLine()); totalLength = averageLength * numberOfHouses; Console.WriteLine(totalLength);</pre>

2.

IPO Chart Information	C# Statements
<p>Input: rateOfFertilizer sizeOfLand priceOfFertilizer</p> <p>Processing: multiply</p> <p>Output: costOfFertilizer</p> <p>Algorithm:</p> <ol style="list-style-type: none"> 7. Prompt for rateOfFertilizer 8. Accept rateOfFertilizer 9. Prompt for sizeOfLand 10. Accept sizeOfLand 11. Prompt for priceOfFertilizer 12. Accept priceOfFertilizer 13. Calculate the multiply by multiplying rateOfFertilizer by sizeOfLand 14. Calculate the costOfFertilizer by multiplying multiply by priceOfFertilizer 15. Display costOfFertilizer 	<pre>//Input double rateOfFertilizer; double sizeOfLand; double priceOfFertilizer; //Processing double multiply; //Output double costOfFertilizer; //Algorithm Console.WriteLine("Enter the rate of fertilizer "); rateOfFertilizer = Convert.ToDouble(Console.ReadLine()); Console.WriteLine("Enter the size of land "); sizeOfLand = Convert.ToDouble(Console.ReadLine()); Console.WriteLine("Enter the price of fertilizer "); priceOfFertilizer = Convert.ToDouble(Console.ReadLine()); multiply = rateOfFertilizer * sizeOfLand; costOfFertilizer = multiply * priceOfFertilizer; Console.WriteLine(costOfFertilizer);</pre>

3.

IPO Chart information	C# Statements
<p>Input SaleTickets BroadAdds Rent Processing Sum Output Profit Algorithm</p> <ol style="list-style-type: none"> 1. Prompt for SaleTickets 2. Accept the SaleTickets 3. Prompt for BroadAdds 4. Accept the BroadAdds 5. Prompt for Rent 6. Accept the Rent 7. Calculate the Sum by adding SaleTickets and BroadAdds 8. Calculate the Profit by subtracting Sum by Rent 9. Display Profit 	<pre>//Input double SaleTickets, BroadAdds, Rent; //Processing double Sum; //Output double Profit; //Algorithm Console.WriteLine("Sale of tickets:"); SaleTickets = Convert.ToDouble(Console.ReadLine()); Console.WriteLine("Broadcasting rights and advertising:"); BroadAdds=Convert.ToDouble(Console.ReadLine()); Console.WriteLine("Rent of center:"); Rent = Convert.ToDouble(Console.ReadLine()); Sum= BroadAdds + SaleTickets; Profit = Sum - Rent; Console.WriteLine("Profit= \$" + Profit);</pre>

4.

IPO Chart information	C# Statements
<p>Input Km PriceFuel Efficiency Processing multiply Output cost Algorithm</p> <ol style="list-style-type: none"> 10. Prompt for Km 11. Accept the Km 12. Prompt for PriceFuel 13. Accept the PriceFuel 14. Prompt for Efficiency 15. Accept the Efficiency 16. Calculate the multiply by multiplying Km by Efficiency 17. Calculate the cost by multiplying multiply by PriceFuel 18. Display cost 	<pre>//Input double Km, PriceFuel, Efficiency; //Processing double multiply; //Output double cost; //Algorithm Console.WriteLine("Amount of Km:"); Km = Convert.ToDouble(Console.ReadLine()); Console.WriteLine("Price of unit of fuel:"); PriceFuel=Convert.ToDouble(Console.ReadLine()); Console.WriteLine("Amount of units of fuel used for each Km:"); Efficiency = Convert.ToDouble(Console.ReadLine()); multiply= Km * Efficiency; cost= multiply * PriceFuel; Console.WriteLine("Cost= \$" + cost);</pre>

5.

IPO Chart information	C# Statements
<p>Input weightProduce</p>	<pre>//Input double weightProduce, weightProducePrice,</pre>

<p>weightProducePrice</p> <p>bagPrice bagCapacity</p> <p>Processing priceProduce numberBags</p> <p>Output cost</p> <p>Algorithm</p> <ol style="list-style-type: none"> 1. Prompt for weightProduce 2. Accept the weightProduce 3. Prompt for weightProducePrice 4. Accept the weightProducePrice 5. Prompt for bagCapacity 6. Accept the bagCapacity 7. Prompt for bagPrice 8. Accept the bagPrice 9. Calculate the priceProduce (cost of the sale without bags) by multiplying the weightProduce with the weightProducePrice 10. Calculate the numberBags (number of bags that is necessary) by dividing the weightProduce by the bagCapacity 11. Calculate the cost by multiplying the numberBags by the bagPrice and adding to the priceProduce. 12. Display cost converting the cost to a currency value 	<p>bagPrice, bagCapacity</p> <pre>//Processing double priceProduce; int numberBags; //Output double cost; //Algorithm Console.WriteLine("Enter the weight of the produce: "); weightProduce= Convert.ToDouble(Console.ReadLine()); Console.WriteLine("Console.WriteLine("Enter the price weight of the produce: "); "); weightProducePrice=Convert.ToDouble(Console.Read dLine()); Console.WriteLine("Console.WriteLine("Enter the capacity of the bag: "); "); bagCapacity=Convert.ToInt32(Console.ReadLine()); Console.WriteLine("Console.WriteLine("Enter the price of the bag: "); "); bagPrice=Convert.ToDouble(Console.ReadLine()); priceProduce = weightProduce * weightProducePrice; numberBags= (int)(weightProduce / bagCapacity); cost = priceProduce + (numberBags * bagPrice); Console.WriteLine("The total cost is " + (cost.ToString("C")));</pre>
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6.

IPO Chart information	C# Statements
<p>Input itemPrice amountMoney</p> <p>Processing division remainder (%)</p> <p>Output numberOfItems</p>	<pre>//Input double itemPrice, amountMoney; //Processing int division; //Output int numberOfItems; double leftOverMoney;</pre>

<p>leftOverMoney</p> <p>Algorithm</p> <ol style="list-style-type: none"> 1. Prompt for itemPrice 2. Accept the itemPrice 3. Prompt for amountMoney 4. Accept the amountMoney 5. Calculate the division by dividing amountMoney by itemPrice 6. Calculate the remainder by using the operator, modulus (%), to retrieve the remainder: amountMoney % itemPrice 7. Display numberOfItems converting the leftOverMoney to a currency value 	<p>//Algorithm</p> <pre>Console.WriteLine("How much is the item?"); itemPrice = Convert.ToDouble(Console.ReadLine()); Console.WriteLine("How much money do you have?"); amountMoney=Convert.ToDouble(Console.ReadLine()); division = amountMoney / itemPrice; numberOfItems = Convert.ToInt32(division); leftOverMoney = amountMoney % itemPrice; Console.WriteLine("You can buy " + numberOfItems + " items, and the left-over is " + (leftOverMoney.ToString("C")));</pre>
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7.

IPO Chart information	C# Statements
<p>Input:</p> <p>lengthRate length joinRate numberOfJoins</p> <p>Processing:</p> <p>lengthCost joinCost</p> <p>Output:</p> <p>cost</p> <p>Algorithm:</p> <ol style="list-style-type: none"> 1. Prompt for lengthRate 2. Accept lengthRate 3. Prompt for length 4. Accept length 5. Prompt for joinRate 6. Accept joinRate 7. Prompt for numberOfJoins 8. Accept numberOfJoins 9. Calculate lengthCost = lengthRate * length 10. Calculate joinCost = joinRate * numberOfJoins 11. Calculate cost = lengthCost + joinCost 12. Display cost 	<p>//Input</p> <pre>double lengthRate; double length; double joinRate; double numberOfJoins;</pre> <p>//Processing</p> <pre>double lengthCost; double joinCost;</pre> <p>//Output</p> <pre>double cost;</pre> <p>//Algorithm</p> <pre>Console.Write("Enter the length rate: "); lengthRate = Convert.ToDouble(Console.ReadLine()); Console.Write("Enter the length: "); length = Convert.ToDouble(Console.ReadLine()); Console.Write("Enter the join rate: "); joinRate = Convert.ToDouble(Console.ReadLine()); Console.Write("Enter the number of joins: "); numberOfJoins = Convert.ToDouble(Console.ReadLine()); lengthCost = lengthRate * length; joinCost = joinRate * numberOfJoins; cost = lengthCost + joinCost; Console.Write("Total cost: " + cost);</pre>

8.

IPO Chart information	C# Statements
<p>Input: amountOfTickets polarRides ferrisRides</p> <p>Processing: subtractionPolar</p> <p>Output: ticketsLeft</p> <p>Algorithm:</p> <ol style="list-style-type: none"> 1. Prompt for amountOfTickets 2. Accept amountOfTickets 3. Prompt for polarRides 4. Accept polarRides 5. Prompt for ferrisRides 6. Accept ferrisRides 7. Calculate subtractionPolar = amountOfTickets - polarRides 8. Calculate ticketsLeft = subtractionPolar - ferrisRides 9. Display ticketsLeft 	<pre>//Input int amountOfTickets; int polarRides; int ferrisRides; //Processing int subtractionPolar; //Output int ticketsLeft; //Algorithm Console.WriteLine("Enter the amount of tickets bought: "); amountOfTickets = Convert.ToInt32(Console.ReadLine()); Console.WriteLine("Enter the number of Polar Express rides taken: "); polarRides = Convert.ToInt32(Console.ReadLine()); Console.WriteLine("Enter the number of Ferris wheel rides taken: "); ferrisRides = Convert.ToInt32(Console.ReadLine()); subtractionPolar = amountOfTickets - polarRides; ticketsLeft = subtractionPolar - ferrisRides; Console.WriteLine("Tickets remaining: " + ticketsLeft);</pre>

9.

IPO Chart information	C# Statements
<p>Input: price budget</p> <p>Processing:</p> <p>Output: candyAmount budgetRemainder</p> <p>Algorithm:</p> <ol style="list-style-type: none"> 1. Prompt price 2. Accept price 3. Prompt budget 4. Accept budget 5. Calculate candyAmount = budget / price 6. Calculate budgetRemainder = 	<pre>//Input double price; double budget; //Processing //Output double candyAmount; double budgetRemainder; //Algorithm Console.WriteLine("Enter price of candy: "); price = Convert.ToDouble(Console.ReadLine()); Console.WriteLine("Enter budget: "); budget = Convert.ToDouble(Console.ReadLine()); candyAmount = budget / price; budgetRemainder = budget - (candyAmount * price);</pre>

$\text{budget} - (\text{candyAmount} * \text{price})$ 7. Display <code>candyAmount</code> 8. Display <code>budgetRemainder</code>	<code>price);</code> <code>Console.WriteLine(\$"Total amount of candies that can be purchased: {candyAmount}");</code> <code>Console.WriteLine(\$"Remaining balance after purchase: {budgetRemainder}");</code>
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10.

IPO Chart information	C# Statements
<p>Input: <code>distance</code> <code>towingRate</code> <code>flatServiceRate</code></p> <p>Processing:</p> <p>Output: <code>cost</code></p> <p>Algorithm:</p> <ol style="list-style-type: none"> 1. Enter <code>distance</code> 2. Accept <code>distance</code> 3. Enter <code>towingRate</code> 4. Accept <code>towingRate</code> 5. Enter <code>flatServiceRate</code> 6. Accept <code>flatServiceRate</code> 7. Calculate $\text{cost} = \text{distance} * \text{towingRate} + \text{flatServiceRate}$ 8. Display <code>cost</code> 	<pre>//Input double distance; double towingRate; double flatServiceRate; //Processing //Output double cost; //Algorithm Console.WriteLine("Enter the distance: "); distance = Convert.ToDouble(Console.ReadLine()); Console.WriteLine("Enter the towing rate: "); towingRate = Convert.ToDouble(Console.ReadLine()); Console.WriteLine("Enter the flat service rate: "); flatServiceRate = Convert.ToDouble(Console.ReadLine()); cost = distance * towingRate + flatServiceRate; Console.WriteLine(\$" Total cost: {cost}");</pre>