**For each of the problems below, identify the output(s), identify the inputs and decide if the problem is solvable. If it can be solved, generate an algorithm and create a two-column IPO chart with the required algorithm. The first column will contain the IPO information and the second column will contain C# statements**

Create a program that calculates and displays the average of three numbers. The user will enter the three numbers.

Output: average

Input: first, second, third

Sample calculation: average = first + second + third / 3

average = 4 + 7 + 10 / 3 = 21 / 3 = 7

|  |  |  |
| --- | --- | --- |
| Input | Processing | Output |
| first  second  third | sum  Algorithm   1. Prompt and accept first, second and third 2. Calculate sum = first + second + third 3. Calculate average = sum / 3 4. Display average | average |

Builders’s Inc. needs a program that allows its salesclerks to enter the diameter of a circle and the prices of railing material per foot. The program should display the circumference of the circle and total cost of the railing material. (Use 3.14 as the value of pi). [You should use double instead of int32 for the number]

Willow Pools wants a program that allows its salespeople to enter the dimensions of a rectangular pool in meters. The program should display the volume of the rectangular pool.

Perry Brown needs a program that allows him to enter the length of fours sides of a polygon. The program should display the perimeter of the polygon.