Q1, Write a defining table and a JavaScript program to compute and output the volume of a tin can. Hint: use the formula and JavaScript code given in this chapter to compute the volume of a cylinder. Your program should correctly handle real numbers.

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| Input | Process | Output |
| Requirement to calculate volume of tin can  Radius  Height | Tin can is cylindrical shape so we use same formula with volume of cylinder  Let r= radius \* radius  Let pi= 3.14….  Let h=height  Then  Volume = p\*r\*h | The output will the volume of the cylinder based on user input |

Q2. . Write a defining table and a JavaScript program that asks a user for a volume in quarts and then converts that value into liters. Your program should correctly handle real numbers such as 7.54.

Quarts = 0.946352946 Liters

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| Input | Process | Output |
| From the user we need input of  The volume  Volume in quarts | One’s we the volume we compute the conversion to litter  So 1 quarts= 0.94635...  Then  let q is the quarts from user  then convert to litter let L  then l= q\* 0.94635 | The output will be volume in letter |

Q3, Write a defining table and a JavaScript program that asks a user for a distance in meters and then converts that value into miles. Your program should correctly handle real numbers.

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| Input | Process | Output |
| List of input to convert distance in meter to distance in mile  . input distance in meter | convert distance to mile  1meter= 0.00062137 mile  .compute input meter \* 0.00062137; | Output distance in mile |

Q4. An employee at a grocery store must frequently place boxes of cans in stacks. Write a defining table and a program that allows him to enter the total number of boxes and the number of boxes he will place in each stack. Your program must output the number of stacks he will have to make. All of the stacks except the last one must have the exact number of boxes that the employee specifies. The last stack must have the exact number or fewer boxes. For example, if the employee enters 74 total boxes and 6 boxes in each stack your program must output 13.

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| Input | Process | Output |
| Placing box in stack  -total number of box  -number of box to be placed to be stacked | Solution  Let ab=number of box then divide into number of stack then  Make a ceiling value of the division to the ab value. | The number of stack needed for total box to be stacked. |

Q5. A teacher frequently divides her class into teams. Write a defining table and a program that allows her to enter the number of students in her class and the number of teams she wants. The number of members on each team must be as balanced as possible. In other words, if not all of the teams can have the same number of members then some of the teams will have only one more member than the other teams. Your program must output a phrase that tells the teacher how to divide her class into teams. For example, if the teacher entered 27 class members and 8 teams, your program must output “3 teams with 4 members and 5 teams with 3 members.” Your program must list the larger teams first.

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| Input | Process | Output |
| Dividing class into a team  Accept  -No of student in a class  -No of team want create  - | Divide no of  -check student divide by team is divided without fraction.  -if yes assign no of student to the team  -if no got the remainder | Create team based on given data different member value |

Q6. Write a defining table and a JavaScript program to compute the mileage of a vehicle. Your program should allow the user to enter the beginning and ending odometer readings and the number of gallons of gasoline used and should output the mileage in miles per gallon. Your program should correctly handle real numbers.

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| Input | Process | output |
| User input  -beginning of the odometer reading  -Ending of odometer reading  -No of gallon used | Distance =ending –begging of the odometer read value  Then gas millage= distance \* Number of gallon | The result will be gas millage per mile of the car expenditure. |

Q7. When you exercise to strengthen your heart, you should maintain your heart rate within a range. To find that range, subtract your age from 220. This difference is your maximum heart rate per minute. Your heart simply will not beat faster than this maximum (220 − age). When exercising to strengthen your heart, you should keep your heart rate between 65% and 85% of your hearts maximum. Write a defining table and a JavaScript program that asks for a person’s age and computes and outputs the slowest and fastest rates necessary to strengthen his heart.

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| Input | | Process | Output | |
| From the user  -Enter age | To get max\_heartrate=220-age  -limit age range below 0 and above 150  -compute percentile of 65 and 85 of max heart rate.  - if greater than 65 and less than 85 you are good to go  -Else you need to have check yourself. | | | The out will be  -keep practice  - stop practice you need to have treat your self |