

# Business and Computer University College

CCE 211 Programming 1  
Tutorial

Sheet: 4

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1. Given Ohms law  $V = I \cdot r$ . Develop a C++ program that prompt the user to press 1 to calculate the voltage, 2 to calculate the current, 3 to calculate the resistance. If user presses any other number print wrong choice. Then calculates the appropriate parameter by inputting the other two. For example, if the user enters 2, then the program should ask for V and R and calculates I.
2. Write a program that prompts the user to input a choice to determine one of the followings. (use the switch statement)
  - a- The area of a circle.  $A = \pi \cdot R^2$
  - b- The surface area of a cylinder.  $A = 2 \cdot \pi \cdot R \cdot L$
  - c- The volume of a cylinder:  $V_c = \pi \cdot R^2 \cdot L$
  - d- The volume of a sphere.  $V_s = \frac{4}{3} \cdot \pi \cdot R^3$

Hint: Make your program case insensitive.

3. Repeat problem 2 but using a nested if/else statement.
4. A company pays its employees as (who receive a fixed salary), - like me!- hourly workers (who receive a fixed hourly wage for up the first 40 hours they work and "time-and-a-half-" example 1.5 times their hourly wage for over times up till and included 50 hour worked, any worked hour above 50 will not counted at all) commission workers(who receive \$250 plus 7.5 % or their gross weekly sales), or piece workers (who receive a fixed amount of money per item for each of the items they produce each piece worker in this company works on only one type of item). Write a program to compute the weekly pay for each employee; you don't know the number of employees in advance. Each type of employee has its own pay code: manager has code 'A', hours workers have code 'B', and commission workers have codes 'C' and piece workers have code 'C'. Use switch to compute each employees pay based on that employees pay codes. Within the switch prompt the user to enter the appropriate facts your program needs to calculate each employee's pay based on that employee's pay code.