

## Decision Making Problems - Switch

Provide solutions to each of the problems below. Use a switch statement in your solution.

1. Write a program for an Internet service provider so they can calculate how much to bill their customers. The provider offers customers 3 packages:

| PACKAGE | COST CALCULATION   |
|---------|--|
| A       | \$9.95 per month for up to 10 hours; additional hours are billed at \$2.00 per hour  |
| B       | \$13.95 per month for up to 20 hours; additional hours are billed at \$1.00 per hour |
| C       | \$19.95 per month for unlimited hours  |

The program should prompt for the letter of the service package (A, B, or C) and the number of hours they have used if either option A or B has been selected.

2. Write a program that can allow the user to perform some simple unit conversions. The program should display a menu of available options to the user, prompt for the desired option, and then prompt for the value. The conversion should be performed, and the new value should be displayed. Use the following table for conversions:

| CONVERSION                    | FORMULA                                       |
|-------------------------------|---|
| POUNDS TO KILOGRAMS           | $\text{kg} = \text{lb} / 2.20462$             |
| FLUID OUNCES (U.S.) TO LITRES | $1 \text{ litre} = 33.8140226 \text{ ounces}$ |
| INCHES TO CENTIMETERS         | $\text{cm} = \text{in} / 0.393701$            |
| FAHRENHEIT TO CELSIUS         | $C = (F - 32) / 1.8$                          |

As an option, also allow for conversions in the opposite direction (e.g. kilograms to pounds)