Sequence and Selection

Programming Exercise

Write programs to solve each of the problems below. When you are done with your program, zip up the project folder and submit to Moodle. Check the evaluation criteria to make sure your program meets them before submission.

1. Write a program that can be used to calculate the commission earned in a real estate transaction. The chart below describes the formulas used to calculate the commission. Your program will ask the user for the sales price as an double, calculate the commission, and display the sales price and commission. Remember to use constants rather than "magic numbers".

Sales Price	Commission
Less than $100,000	5% of the sales price
$100,000 to $300,000	$5,000 + 10% of the amount of the sales price over $100,000
More than $300,000	$25,000 + 15% of the amount of the sales price over $300,000

2. Write a program that acts as a simple calculator. You will ask the user to enter two integers. Then you will ask for an operator from the list *,/,%,+, and -. If the user does not enter a valid operator, you will report the error and not perform any action. If the user asked to do division and the second number is zero, you will report the error and not perform any action. Otherwise, you will display what the equation is and the result.

    Examples of running the program:

        Enter two integers:
            3   5
        Enter an operator from the list * / % + -
            *
        3 * 5 = 15

        Enter two integers:
            5   0
        Enter an operator from the list * / % + -
            /
        You cannot divide by zero.

        Enter two integers:
            20   12
        Enter an operator from the list * / % + -
            &
        That is not a valid operator.