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Remember to indent the bodies of your IF-THEN blocks.

- 1) (3 pts) An important application of IF-THEN statements is *error checking*. Error checking means that you take steps to ensure that a calculation won't fail before attempting to perform it. Examples of this include dividing by zero, taking the square root of a negative number, taking the log of a negative number, etc.

Write a MATLAB script program that will ask the user to input 2 values  $a$  and  $b$ . If it is feasible to do so, the program should compute the quotient  $\frac{a}{b}$  and display the result. Otherwise, the program should print out an appropriate error message. Devise 2 test cases that will test each branch of your IF-THEN statement.

- 2) (3 pts) Write a MATLAB script that will read in a value from the keyboard and print out a message telling the user whether the value is either even or odd. The `mod` function will be useful here.
- 3) (3 pts) NOTE: You should assume that you are working with real (not complex) numbers for this problem. Write a program that will ask the user to input a value  $x$  and test if the function

$$y = \ln\left(\frac{1}{x^2 + x - 6}\right)$$

can be computed for that value of  $x$ . If  $y$  can be computed, the program should print the corresponding value of  $y$ . If  $y$  cannot be evaluated, the program should print out an appropriate error message. Test your program for two values of  $x$  that work and one that does not.