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| **Name:** | Enter Formula |
| **Summary:** | User enters a formula into the Calculator App to receive a calculated result. |
| **Version:** | 1.0 |
| **Preconditions:** | 1. The application must be started and the user must be able to see the output that reads, "Enter first number for Calculator: ". 2. The user must have access to the console interface to enter in data. |
| **Triggers:** | User starts the program. |
| **Main Success Scenario:** | 1. User enters a whole number into the input. 2. User enters one of the operators specified in the screen Prompt. 3. User enters a second whole number. 4. System Displays the correct calculated result. |
| **Alternative Success Scenarios:** | 1. Alternate Success Scenario 1    1. User enters “Y” at the Continue Doing Math screen    2. User is then presented with the Main scenario 2. Alternate Success Scenario 2    1. User enters “N” at the Continue Doing Math screen    2. The program exits successfully 3. Alternate Success Scenario 3    1. User enters “H” for history    2. User is presented with the past entries in the Program |
| **Postconditions:** | After the conditions are met and the program completes, the program returns to a neutral state waiting for more input from the user or a re-start of the program |
| **Business Rules:** | 1. All “number” input must be a number 2. All operands must be in the following list:    1. +    2. –    3. \*    4. /    5. %    6. ^ 3. To continue program, the user must press “Y” |
| **Notes:** | 1. Any division by 0 doesn’t throw an error, but returns “Infinity” 2. If an invalid operator is found, the program will start from the beginning again. |
| **Author:** | John Sirrine |
| **Date:** | 6/28/2019 |