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HW7

- a) I tested my program using the unit tests and scanning through my errors and using the examples provided. For a particular unit test, I would copy and paste it into another file and look at the generated instructions and scan it to see where it went wrong and that helped me identify my errors.
- b) 1. My first program takes an input from the user as a number and converts it into its equivalent roman numeral string and outputs it to the terminal.

```
kstevens3@ada:~/hw7-katieas$ bazel-bin/mypl examples/interesting1.myp1
Enter a Number: 99
XCIXkstevens3@ada:~/hw7-katieas$
```

- 2. My second program is a two player numbers game where the first player enters a number and the second player enters a number and whoever has the higher number wins. It is played to whoever scores 3 points first and it will announce the winner.

```
Player 1 enter a number (1 - 10): 9
Player 2 enter a number (1 - 10): 1
Player 1's number was higher! Player 1 gets a point!
Player 1 points: 1
Player 2 points: 0
-----
Player 1 enter a number (1 - 10): 1
Player 2 enter a number (1 - 10): 8
Player 2's number was higher! Player 2 gets a point!
Player 1 points: 1
Player 2 points: 1
-----
Player 1 enter a number (1 - 10): 5
Player 2 enter a number (1 - 10): 4
Player 1's number was higher! Player 1 gets a point!
Player 1 points: 2
Player 2 points: 1
-----
Player 1 enter a number (1 - 10): 3
Player 2 enter a number (1 - 10): 2
Player 1's number was higher! Player 1 gets a point!
Player 1 points: 3
Player 2 points: 1
-----
Player 1 wins!kstevens3@ada:~/hw7-katieas$
```

3. My third program is a calculator. It allows the user to input two numbers and it will perform an operation on them. Then outputs the result to the terminal.

```
Enter 1st number: 5
Enter 2nd number: 5
Select Operation:
1. Addition
2. Subtraction
3. Multiplication
4. Division
Enter the number of which operation to perform: 1
Result: 10kstevens3@ada:~/hw7-katieas$
```

c) I had a lot of trouble with identifying problems because there was a lot of underlying problems in my VM instructions and Static Checker. I would spend a long time thinking I had something going wrong in my Code Generator only to realize I had a small mistake in my VM.