Jonathon Walsh

~~12/15/17~~

12/23/17

~~4 Goals~~

Notes

registers: a b c d e f g h

```
1:  b ← 79
2:  c ← b
3:  if(a≠0) goto 5
4:  goto 9
5:  b ← b * 100
6:  b ← b + 100,000
7:  c ← b
8:  c ← c + 17,000
9:  f ← 1
10: d ← 2
11: e ← 2
12: g ← d
13: g ← g * e
14: g ← g - b
15: if(g≠0) goto 17
16: f ← 0
17: e ← e + 1
18: g ← e
19: g ← g - b
20: if(g≠0) goto 12
21: d ← d + 1
22: g ← d
23: g ← g - b
24: if(g≠0) goto 11
25: if(f≠0) goto 27
26: h ← h + 1
27: g ← b
28: g ← g - c
29: if(g≠0) goto 31
30: exit(∅)
31: b ← b + 17
32: goto 9
```

```
1:  b ← 79
2:  c ← 79
3:  if (a≠0) goto 5
4:  goto 7
5:  b ← 107,900      numMults += 1
6:  c ← 124,900
7:  f ← 1
8:  d ← 2
9:  e ← 2
10: g ← d*c - b      numMults += 1
11: if (g≠0) goto 13
12: f = 0
13: e ← e + 1
14: g ← e - b
15: if (g≠0) goto 10
16: d ← d + 1
17: g ← d - b
18: if (g≠0) goto 9
19: if (f≠0) goto 21
20: h ← h + 1
21: g ← b - c
22: if (g≠0) goto 24
23: exit(0)
24: b ← b + 17
25: goto 7
```

```
b = 79;
c = 79;
if (a != 0) {  // numMults += 1;
    b = 107,900;
    c = 124,900;
}
do while (b != c) {
    f = 1;
    d = 2;
    do while (d != b) {
        e = 2;
        do while (e != b) {  // numMults += 1;
            if (d*e - b == 0)
                f = 0;
            e += 1;
        }
        d += 1;
    }
    if (f == 0)
        h += 1;
    b += 17;
}
```

** if (f == 0), Then there are two nums between 2 and b, x and y, where x * y = b
This, when f == 0, b is not prime!