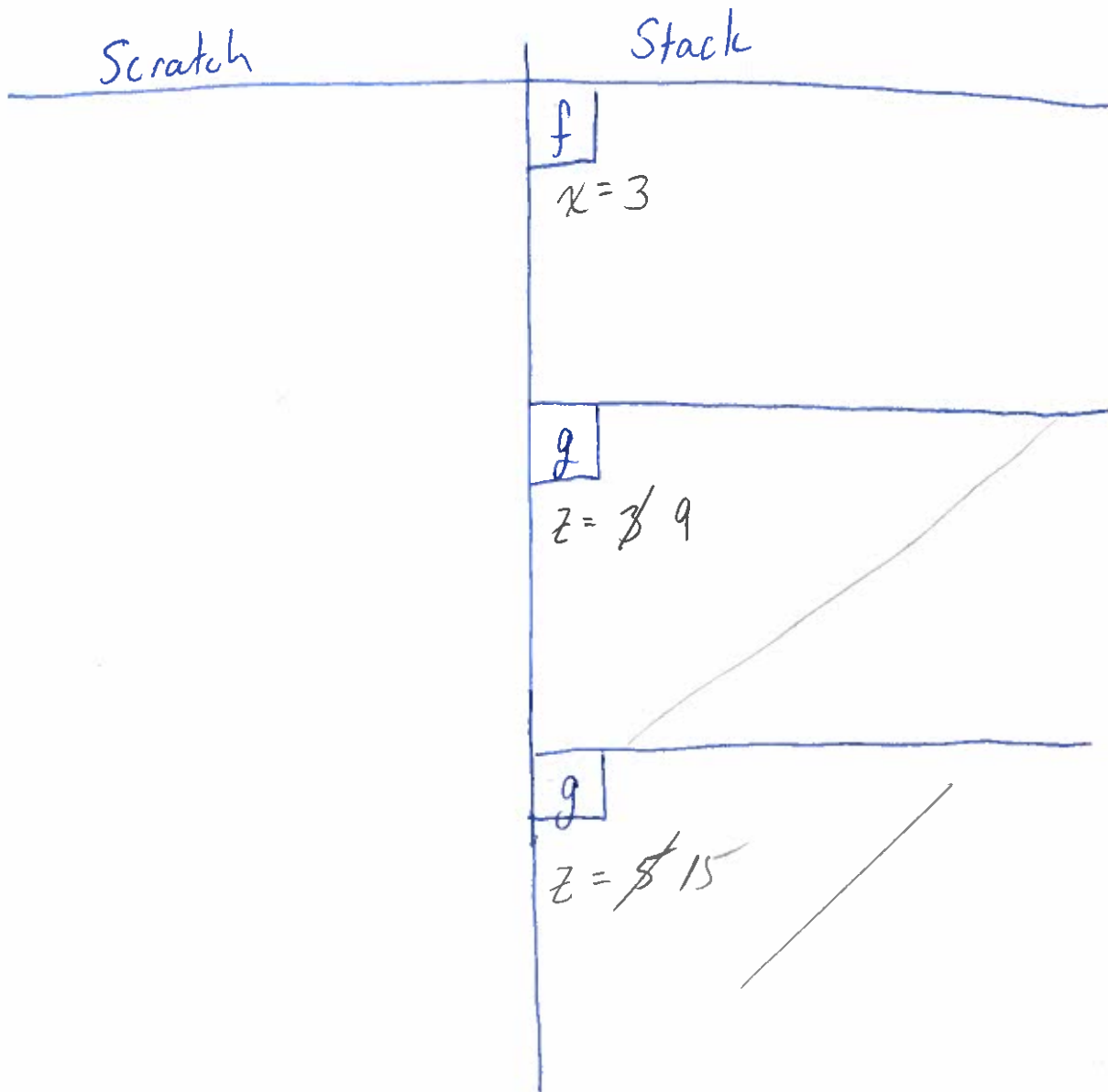2022-02-18   Function Stack Tracing

Solutions to the First Stack Tracing Problems

The code is in the .py file for Today

1)

Scratch	Stack

f
$x = 3$

g
$z = \cancel{8}\ 9$

g
$z = \cancel{8}\ 15$

Printed Output
9
15
3

2)

Scratch | Stack

main

bob

$x = 6$

$y = 7$

26

alice

$z = 13$

26

Printed output

26

2.5)

Scratch | Stack

main

alice(8) + alice(-2)
16 + 8

bob
$x = 8$
$y = -2$

24

alice
$z = 8$

16

alice
$z = -2$

8

Printed Output

24

3)

Scratch	Stack

Main 3

$x = 5$

555

$x = 7$
$y = 2$

$\boxed{5}$

aaa

$x = 5$
$s = \text{'hi'}$
$z = \cancel{7}\ 28$

$\boxed{28}$

aaa

$x = 4$
$s = \text{'abcd'}$
$z = \cancel{7}\ 10$

$\boxed{10}$

555

$x = 3$
$y = 14$

$\boxed{4}$

Printed Output

I do not like the number 5.

28

My string is abcd and my number is 4.

10

4)   Scratch

| Stack
| main4 |
|
| _____
| | while_ex |
|
| n=3
| i=0̷ 1 2̷ 3
| j=0̷ 0̷ 2̷ 3 | 3
| _____
| while_ex |
|
| n=4
| i=0̷ 1 2̷ 3̷ 4
| j=0̷ 0̷ 1 3̷ 6 | 6
| _____
|
|

Printed Output

3
6