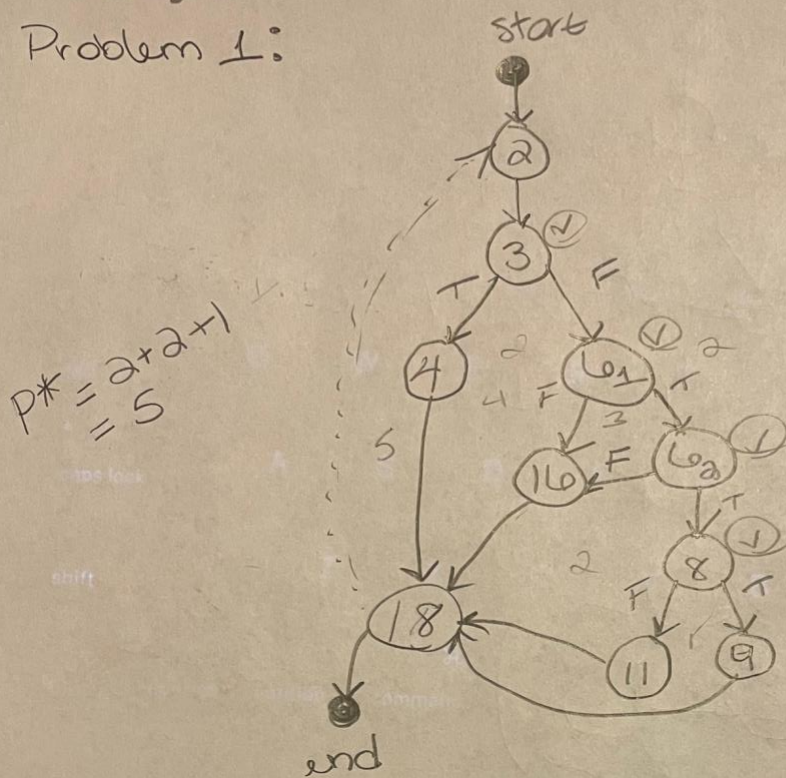


Elizabeth
Dayton

SQA Assignment #1

Problem 1:



Cyclomatic #

Method 1

5 banded areas \rightarrow cyclomatic # = 5

Method 2

4 conditionals + 1 \rightarrow cyclomatic # = 5

Method 3

edges = 13 - 10

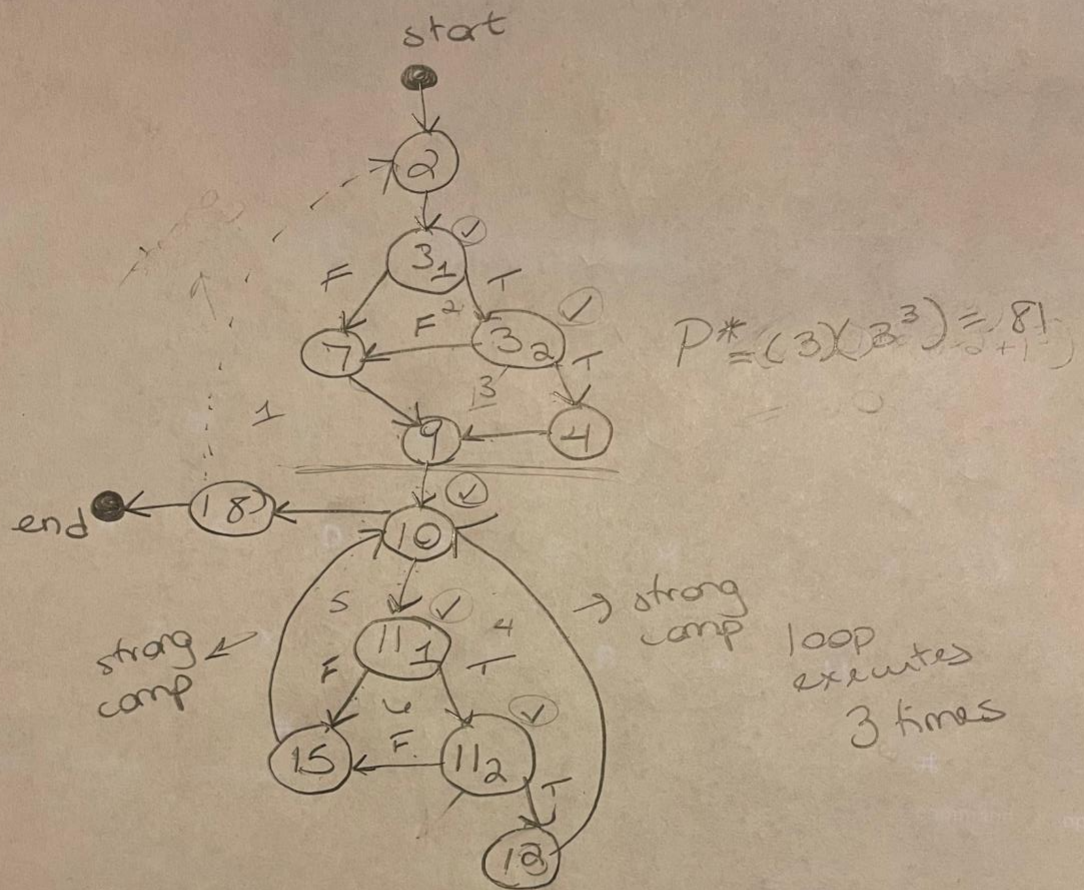
$13 - 10 + 2 = 5$

nodes = 10

strong components = 2

cyclomatic # = 5

Problem 2:



Cyclomatic #

Method #1 6 bounded areas \rightarrow cyclomatic # = 6

Method #2 5 conditionals + 1 \rightarrow cyclomatic # = 6

Method #3

edges = 16

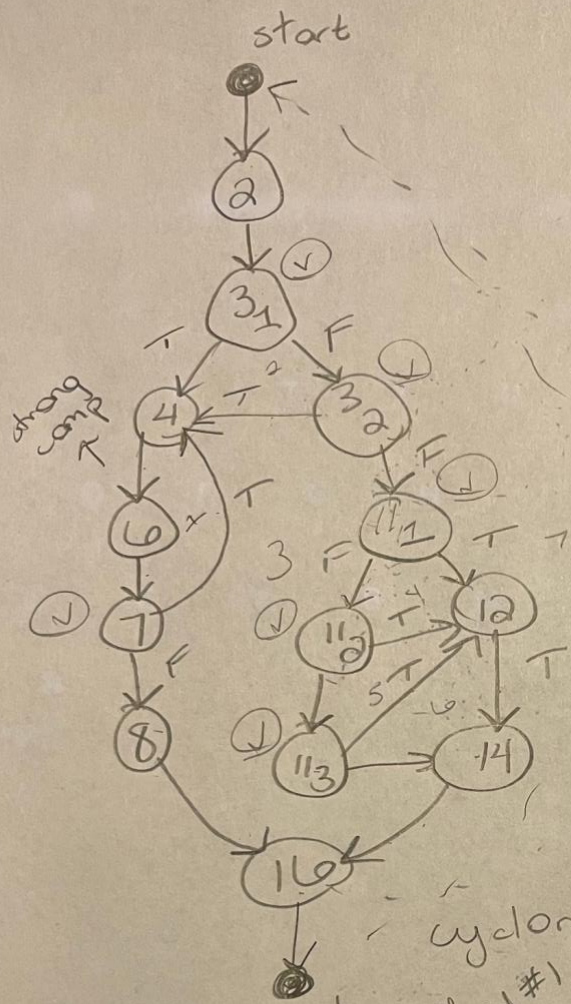
nodes = 12

strong components = 2

$$16 - 12 + 2 = 6$$

cyclomatic # = 6

Problem 3:



$$p^* = (1 + 12 + 13)(2) + (4) = 10$$

7 banded areas $\rightarrow \# = 7$

Method #2

$$6 \text{ conditionals} + 1 = 7$$

Method #3

$$\text{edges} = 18$$

$$\text{nodes} = 13$$

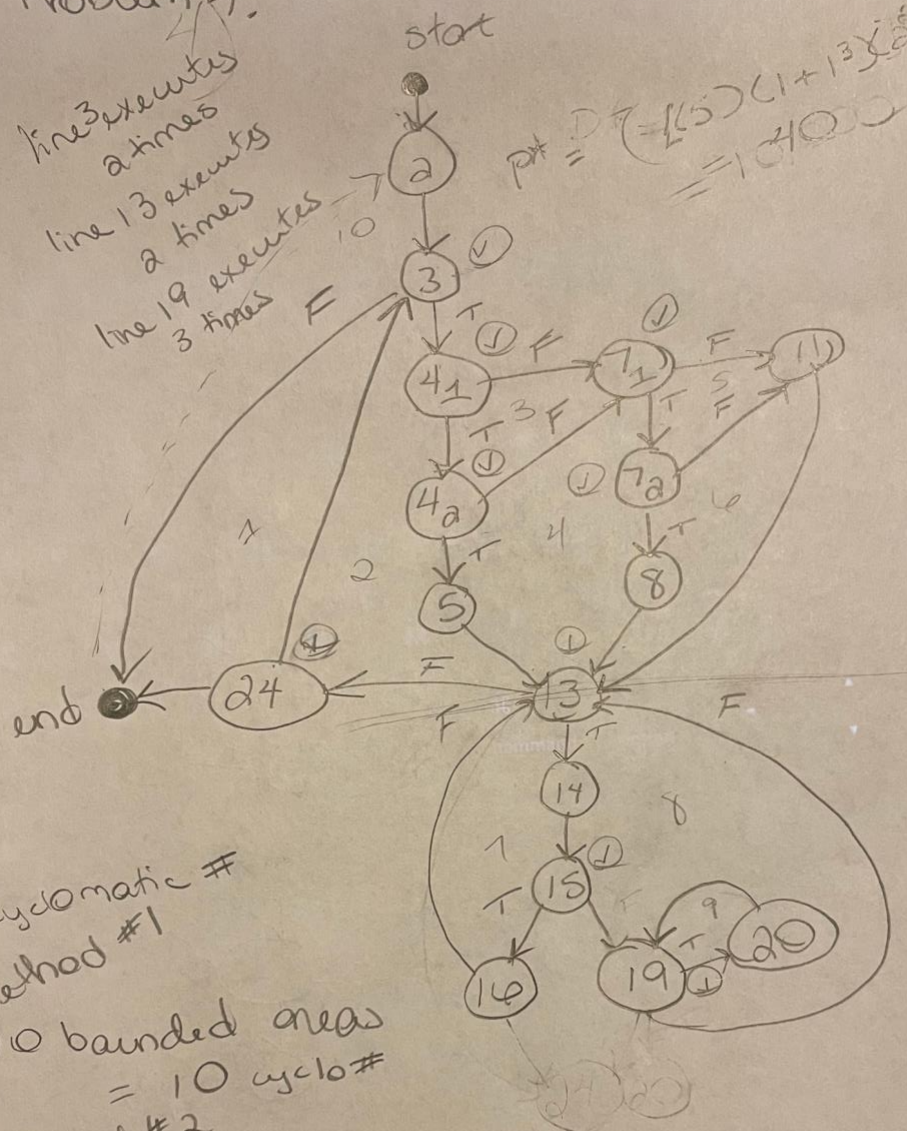
$$\text{strong comp} = 2$$

$$18 - 13 + 2 = 7$$

Problem 4:

line 3 executes
2 times
line 13 executes
2 times
line 19 executes
3 times

$$P^* = \frac{1}{2} \left(\frac{1}{5} \right) (1 + 13 \times 2 \times 2) = 1400$$



Cyclomatic #
Method #1

10 bounded areas
= 10 cyclo#

Method #2

9 conditionals + 1 = 10 cyclo#

Method #3

edges = 24

nodes = 16

strong comp = 2

$$24 - 16 + 2 = 10 \text{ cyclo#}$$