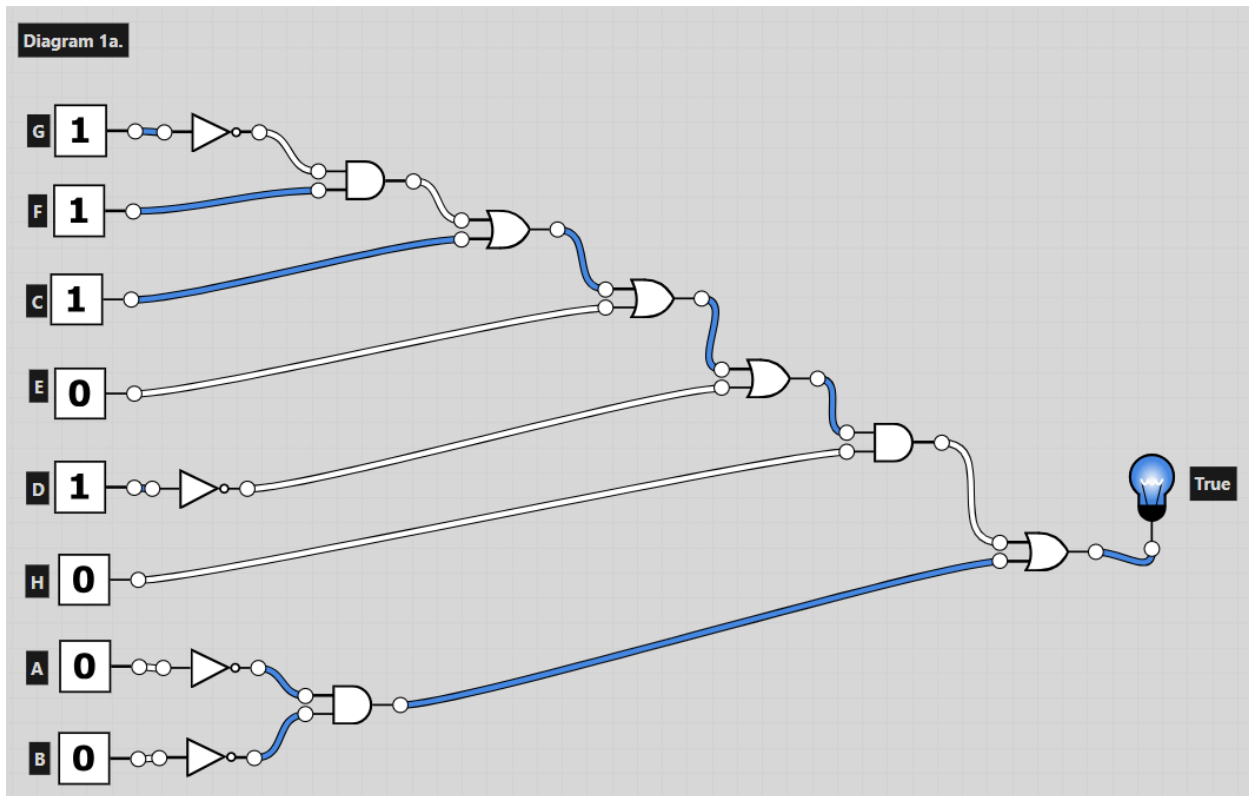


Part I

1a.

(((NOT G) AND F) OR C) OR E) OR (NOT D) AND H) OR ((NOT A) AND (NOT B))
(((NOT True) AND True) OR True) OR False) OR (NOT True) AND False) OR ((NOT False) AND (NOT False))
(((False) AND True) OR True) OR False) OR (False) AND False) OR ((True) AND (True))
(((False) OR True) OR False) OR (False) AND False) OR (True)
(((True) OR False) OR (False) AND False) OR (True)
((True) OR (False) AND False) OR (True)
((True) AND False) OR (True)
(False) OR (True)
True



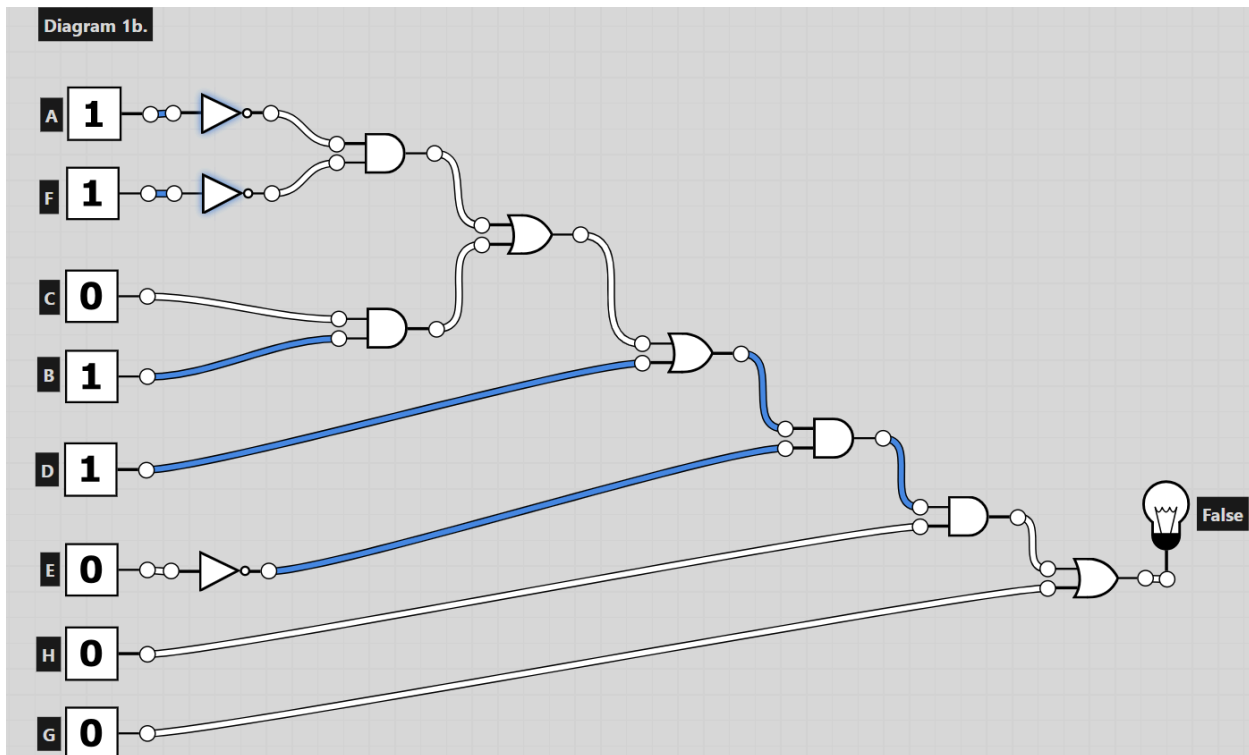
Screenshot 1a:

```
1a.py > ...
1 A=B=E=H=K=False
2 C=D=F=G=I=J=L=True
3 X=(((NOT G) and F) or C) or E) or (not D) and H) or ((not A) and (not B))
4 print(X)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS SERIAL MONITOR
PS C:\Stuff\VSCode\COMP_1005_1405\101331395_A1> & C:/Users/derek/AppData/Local/Programs/Python/Python312/python.exe c:/Stuff/VSCode/COMP_1005_1405/101331395_A1/1a.py
True
PS C:\Stuff\VSCode\COMP_1005_1405\101331395_A1>
```

1b.

(((NOT A) AND (NOT F)) OR (C AND B) OR D) AND (NOT E)) AND H OR G
(((NOT True) AND (NOT True)) OR (False AND True) OR True) AND (NOT False)) AND False OR False
(((False) AND (False)) OR (False) OR True) AND (True)) AND False OR False
(((False) OR (False) OR True) AND (True)) AND False OR False
((False OR True) AND (True)) AND False OR False
((True) AND (True)) AND False OR False
True AND False OR False
False OR False
False



Screenshot 1b:

```
1b.py > ...
1 C=E=G=H=I=K=False
2 A=B=D=F=J=L=True
3 X = (((not A) and (not F)) or (C and B) or D) and (not E)) and H or G
4 print(X)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS SERIAL MONITOR

PS C:\Stuff\VSCode\COMP_1005_1405\101331395_A1> & C:/Users/derek/AppData/Local/Programs/Python/Python312/python.exe c:/Stuff/VSCode/COMP_1005_1405/101331395_A1/1b.py
False
PS C:\Stuff\VSCode\COMP_1005_1405\101331395_A1> 
```

2a) animalList = myList[:7:2]

- The animals in the list are "tiger", "buffalo", "horse", "cat"
- Animals appear from index 0-6, every two elements
- myList[:7:2] returns a list including all elements from *myList* between index 0(inclusive) to 7(exclusive), every 2 elements
 - Returns elements of *myList* at indexes 0, 2, 4, 6

Screenshot 2a:

```
2a.py > ...
1 myList = ["tiger", 4, "buffalo", 6, "horse", 8, "cat", 1, 2, 50, 60, 3, 70, 80, 5, 100]
2 animalList = myList[:7:2]
3 print(animalList)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS SERIAL MONITOR

PS C:\Stuff\VSCode\COMP_1005_1405\101331395_A1> C:/Users/derek/AppData/Local/Programs/Python/Python312/python.exe c:/Stuff/VSCode/COMP_1005_1405/101331395_A1/2a.py
['tiger', 'buffalo', 'horse', 'cat']
PS C:\Stuff\VSCode\COMP_1005_1405\101331395_A1> |
```

2b) primeNumList = myList[8:15:3]

- The prime numbers in the list are 2, 3 and 5
- Prime numbers appear from index 8-14, every 3 elements
- myList[8:15:3] returns a list including all elements from *myList* between index 8(inclusive) to 15(exclusive), every 3 elements
 - Returns elements of *myList* at indexes 8, 11, 14

Screenshot 2b:

```
2b.py > ...
1 myList = ["tiger", 4, "buffalo", 6, "horse", 8, "cat", 1, 2, 50, 60, 3, 70, 80, 5, 100]
2 primeNumList = myList[8:15:3]
3 print(primeNumList)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS SERIAL MONITOR

PS C:\Stuff\VSCode\COMP_1005_1405\101331395_A1> & C:/Users/derek/AppData/Local/Programs/Python/Python312/python.exe c:/Stuff/VSCode/COMP_1005_1405/101331395_A1/2b.py
[2, 3, 5]
PS C:\Stuff\VSCode\COMP_1005_1405\101331395_A1> |
```

2c) greaterList= myList[13:16:2]

- The numbers greater than 70 in the list are 80 and 100
- Numbers greater than 70 appear from index 13-15, every 2 elements
- myList[13:16:2] returns a list including all elements from *myList* between index 13(inclusive) to 16(exclusive), every 2 elements
 - Returns elements of *myList* at indexes 13, 15

Screenshot 2c:

```
2c.py > ...
1 myList = ["tiger", 4, "buffalo", 6, "horse", 8, "cat", 1, 2, 50, 60, 3, 70, 80, 5, 100]
2 greaterList = myList[13:16:2]
3 print(greaterList)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS SERIAL MONITOR
PS C:\Stuff\VSCode\COMP_1005_1405\101331395_A1> & C:/Users/derek/AppData/Local/Programs/Python/Python312/python.exe c:/Stuff/VSCode/COMP_1005_1405/101331395_A1/2c.py
[80, 100]
PS C:\Stuff\VSCode\COMP_1005_1405\101331395_A1> █
```

2d) substring = myList[2].strip("buo")

- Substring "ffal" appears in "buffalo", index 2 in myList. (myList[2])
- .strip("buo") removes the specified characters - b, u, o - from both ends of the string until it reaches a character that isn't specified in the strip command.
- myList[2].strip("buo") removes all occurrences of characters b, u, o from "buffalo". As a result, only "ffal" is returned.

Screenshot 2d:

```
2d.py > ...
1 myList = ["tiger", 4, "buffalo", 6, "horse", 8, "cat", 1, 2, 50, 60, 3, 70, 80, 5, 100]
2 substring = myList[2].strip("buo")
3 print(substring)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS SERIAL MONITOR
PS C:\Stuff\VSCode\COMP_1005_1405\101331395_A1> & C:/Users/derek/AppData/Local/Programs/Python/Python312/python.exe c:/Stuff/VSCode/COMP_1005_1405/101331395_A1/2d.py
ffal
PS C:\Stuff\VSCode\COMP_1005_1405\101331395_A1> █
```