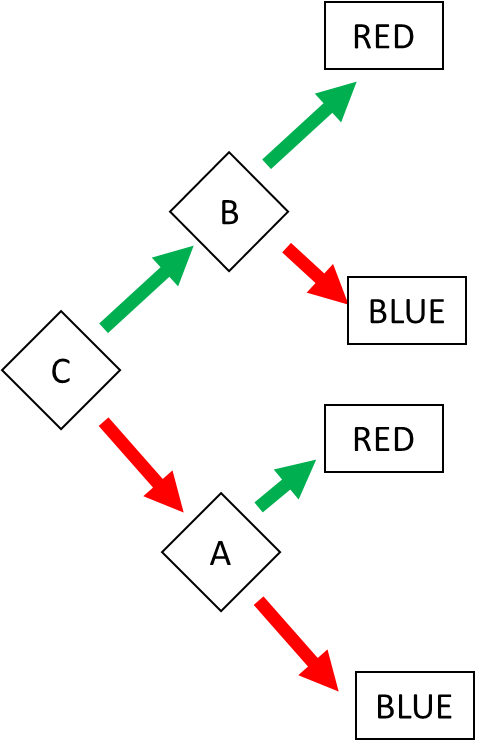
# C3- S8 PRACTICE

# Flowchart to Boolean expression

Example



Answer:

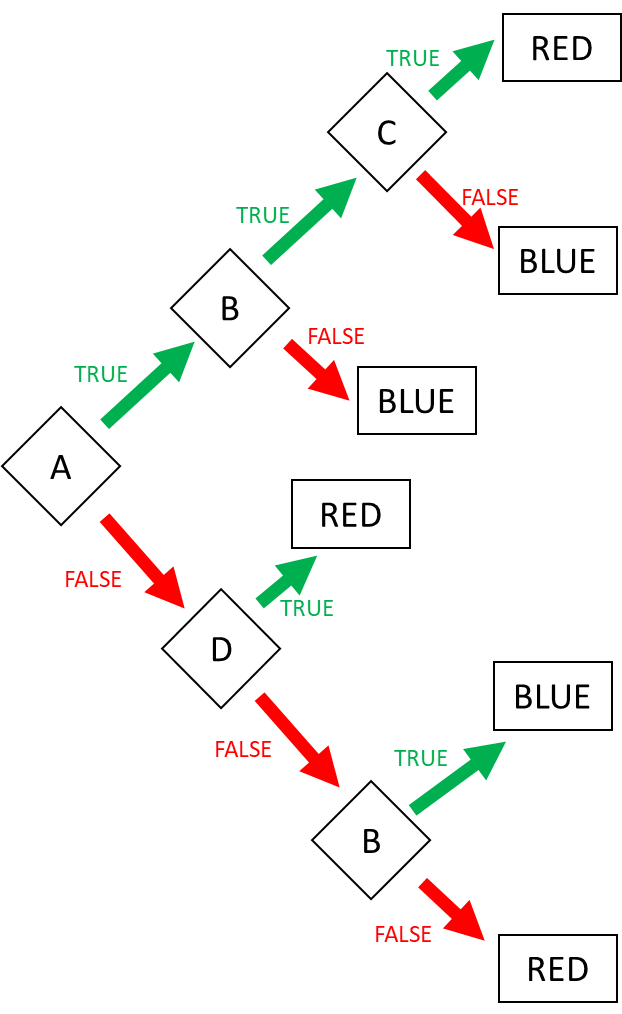
RED = (C and B) or (!C and A)

BLUE = (C and !B) or (!C and !A)

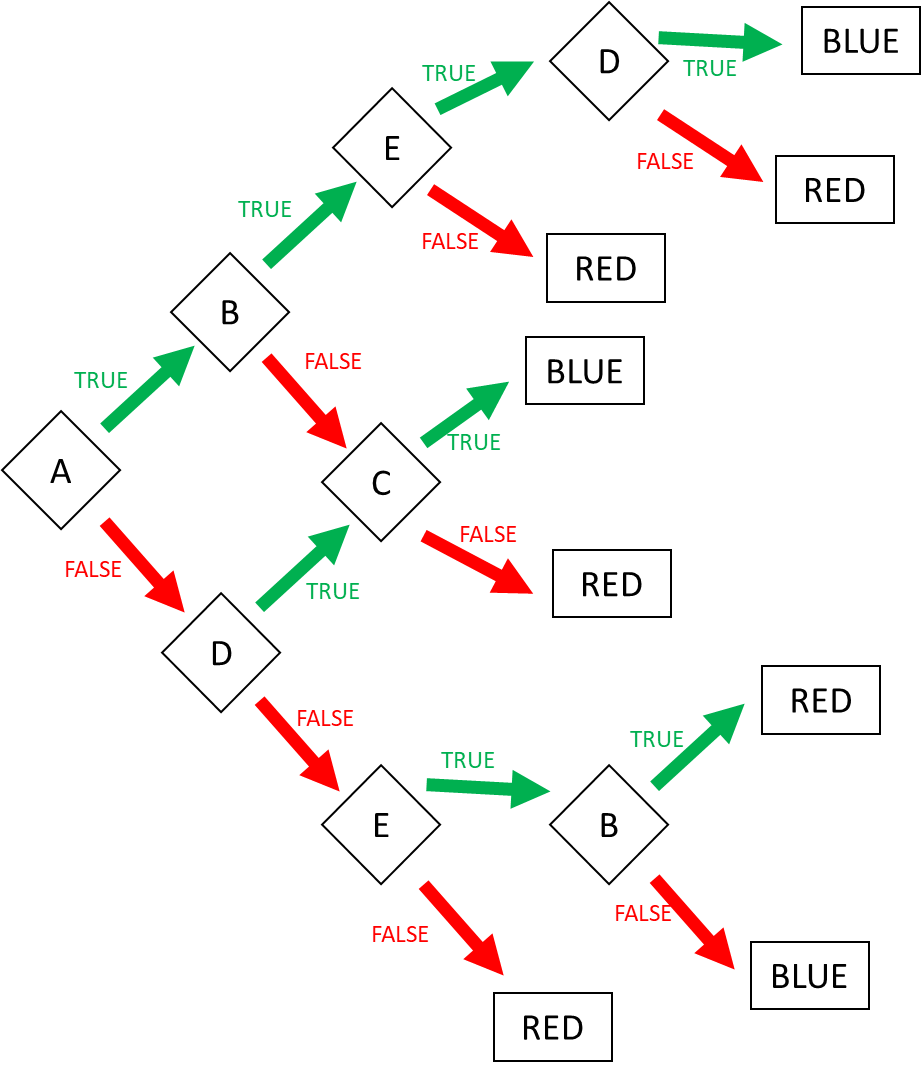
# Ex 1: Find the Boolean expression of BLUE

BLUE = (A and B and !C) or (A and !B) or (!A and !D and B)

= (AB!C or A!B or !A!DB)



# Ex 2: Find the Boolean expression of BLUE



BLUE = (A and B and E and D) or (A and !B and C) or (!A and !B and E and !D)

= ABED or !A!BE!D or A!BC

Ex 2: Create the flowchart according to the expressions (4 flowcharts):

Answer

true

False

1. Go to the market = AB or !A!C

!Go to the market

B

Go to the market

A

C

!Go to the market

1. Go to swim = ( Sunny AND Sunday) OR ( !(Sunny) and Monday and no homework)

!Go to swim

Go to swim

sunday

!Go to swim

sunny

Monday

No homework

!Go to swim

1. I’m superman = A!BCD or AB!CD or !ABCD

I’m not superman

C

B

I’m superman

D

C

A

C

B

I’m not superman

I’m not superman

1. Happy = ABC!DE!F or A!BCD!EF or !ABCD!E or !A!BC

Happy

F

E

F

D

C

Happy

D

B

C

A

D

Happy

E

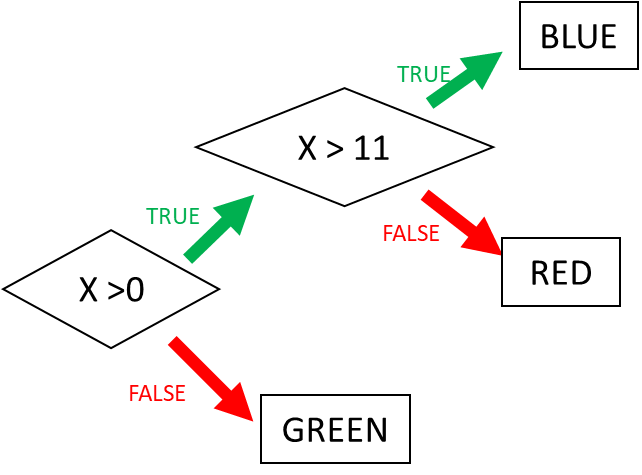
B

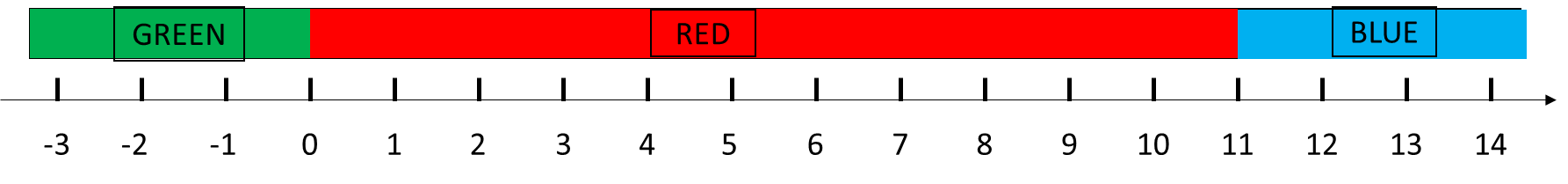
C

Happy

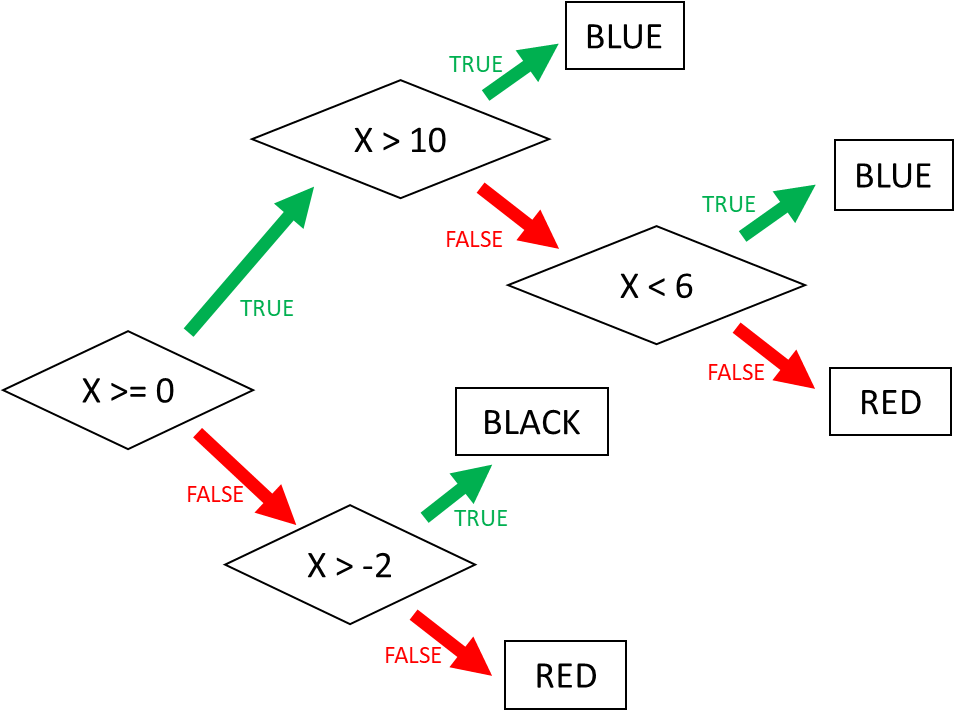
# 1D range colors

Example:





Ex 3: Ranges (1)



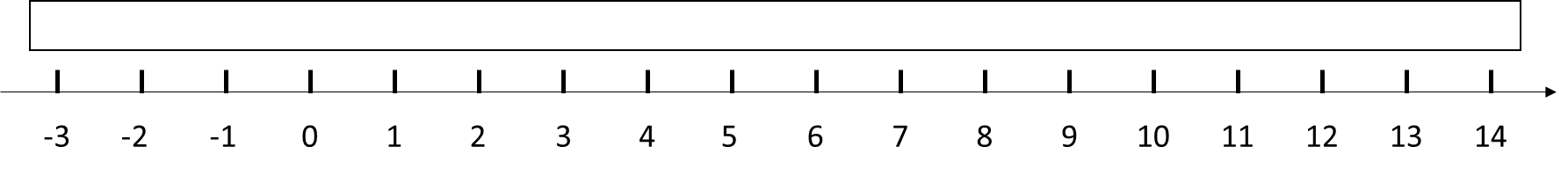
blue

red

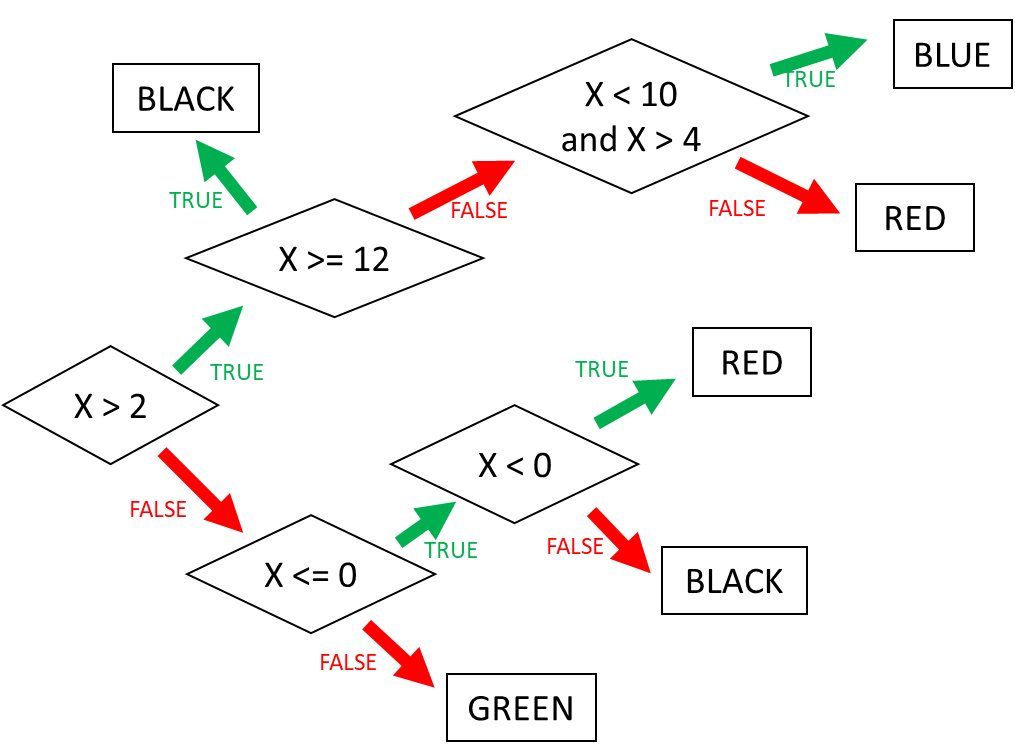
blue

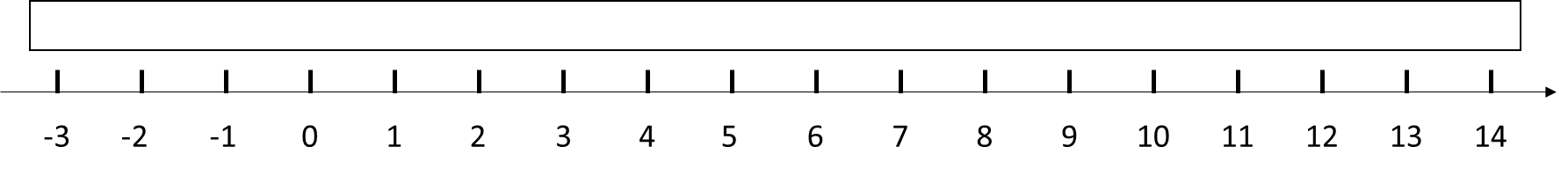
black

red



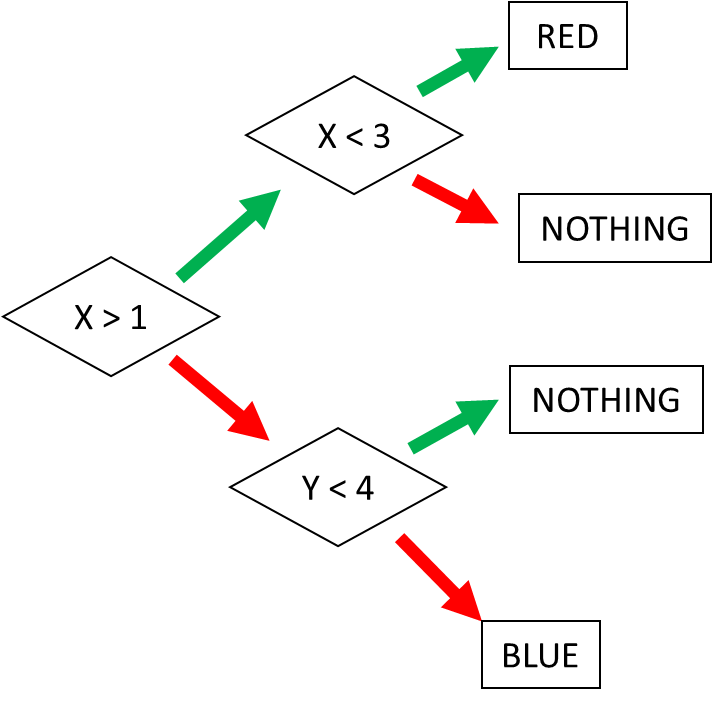
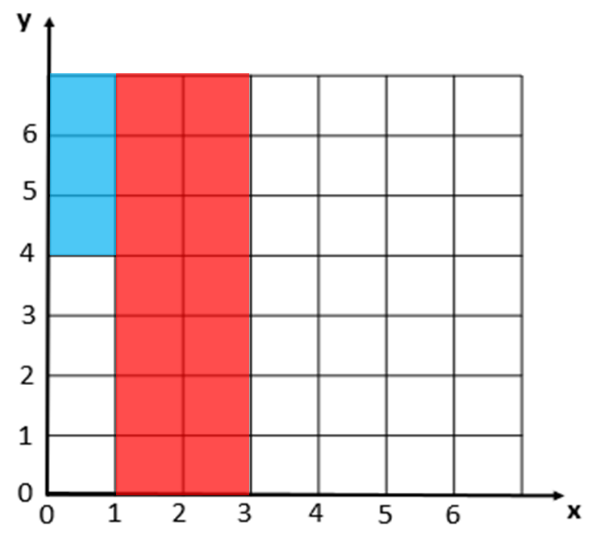
Ex 4: Ranges (2)



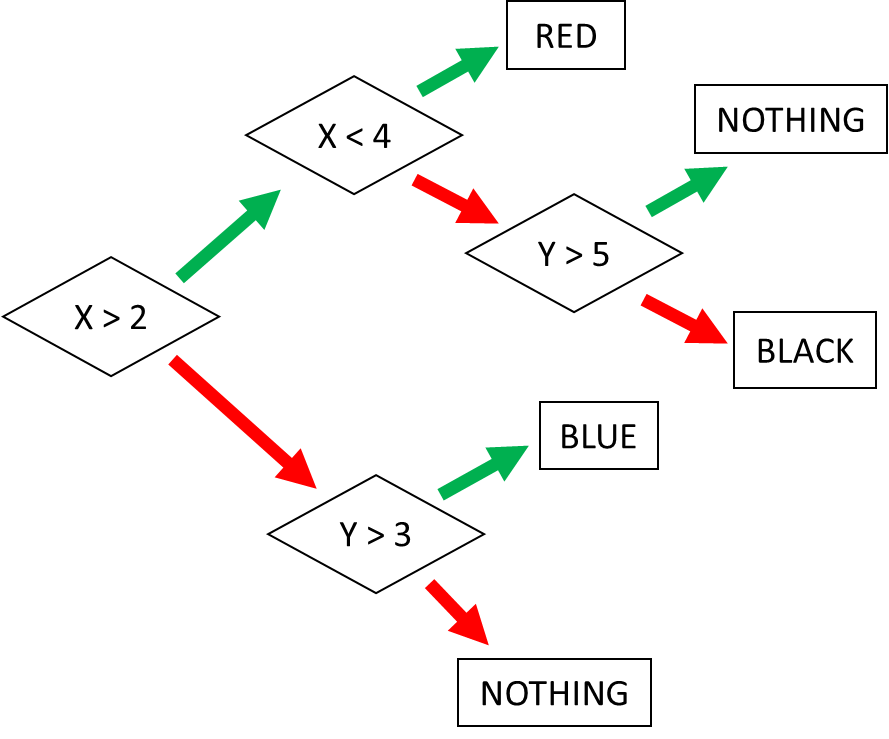


# 2D range colors

Example:

Ex 5: Square (1)

Ex 6: Square (2)

