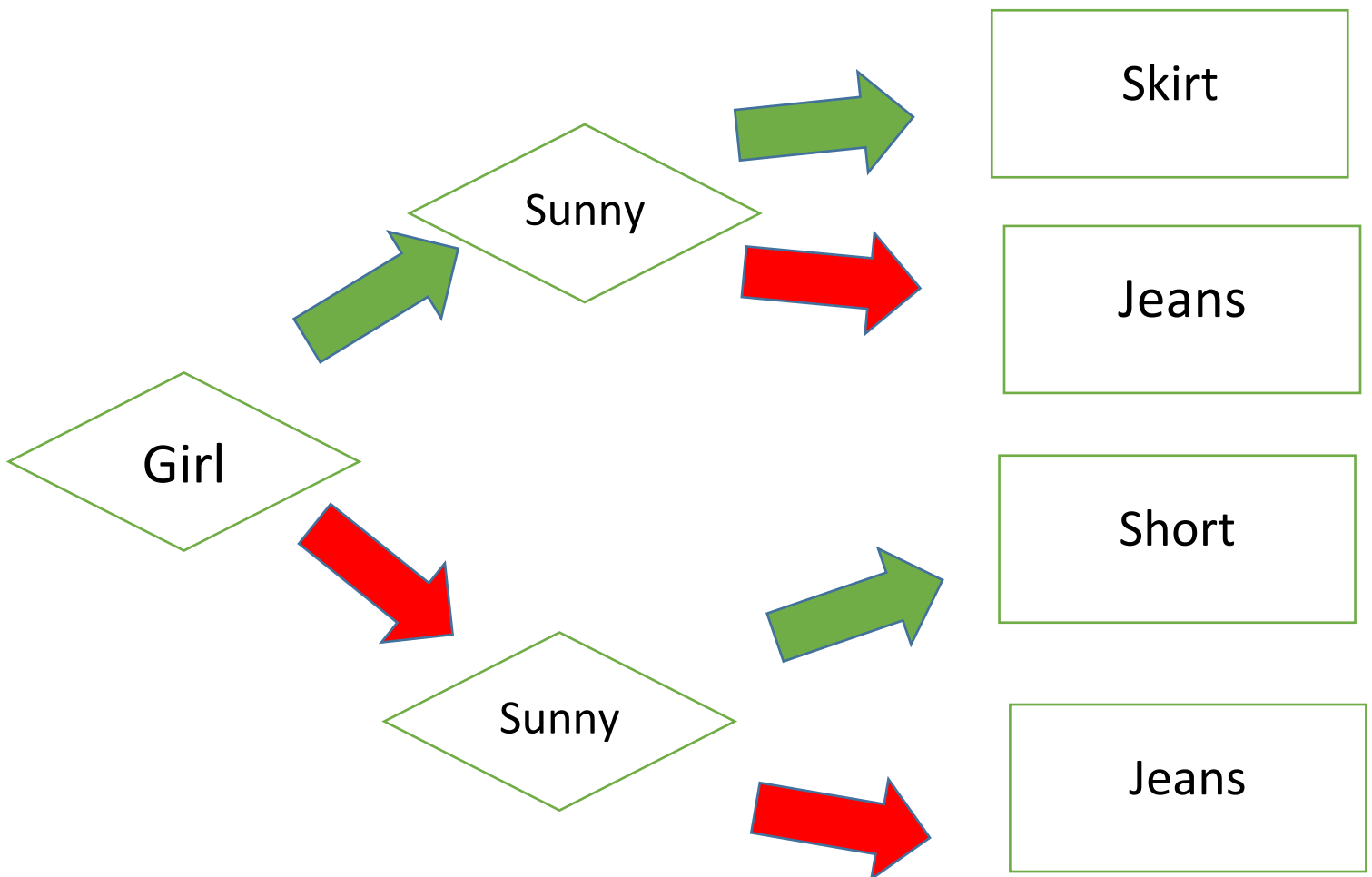# Homework

Create a flowchart :

If I am a girl and it is sunny, I wear a skirt

If I am a girl and it is not sunny, I wear jeans

If I am a boy and it is sunny, I wear a short

If I am a boy and it is not sunny, I wear jeans

Girl

Sunny

Sunny

Skirt

Jeans

Short

Jeans

Find the boolean expression of BLUE

A!B OR AB!C OR !A!DB

RAD

C

BLUE

B

BLUE

A

RAD

D

BLUE

B

RAD
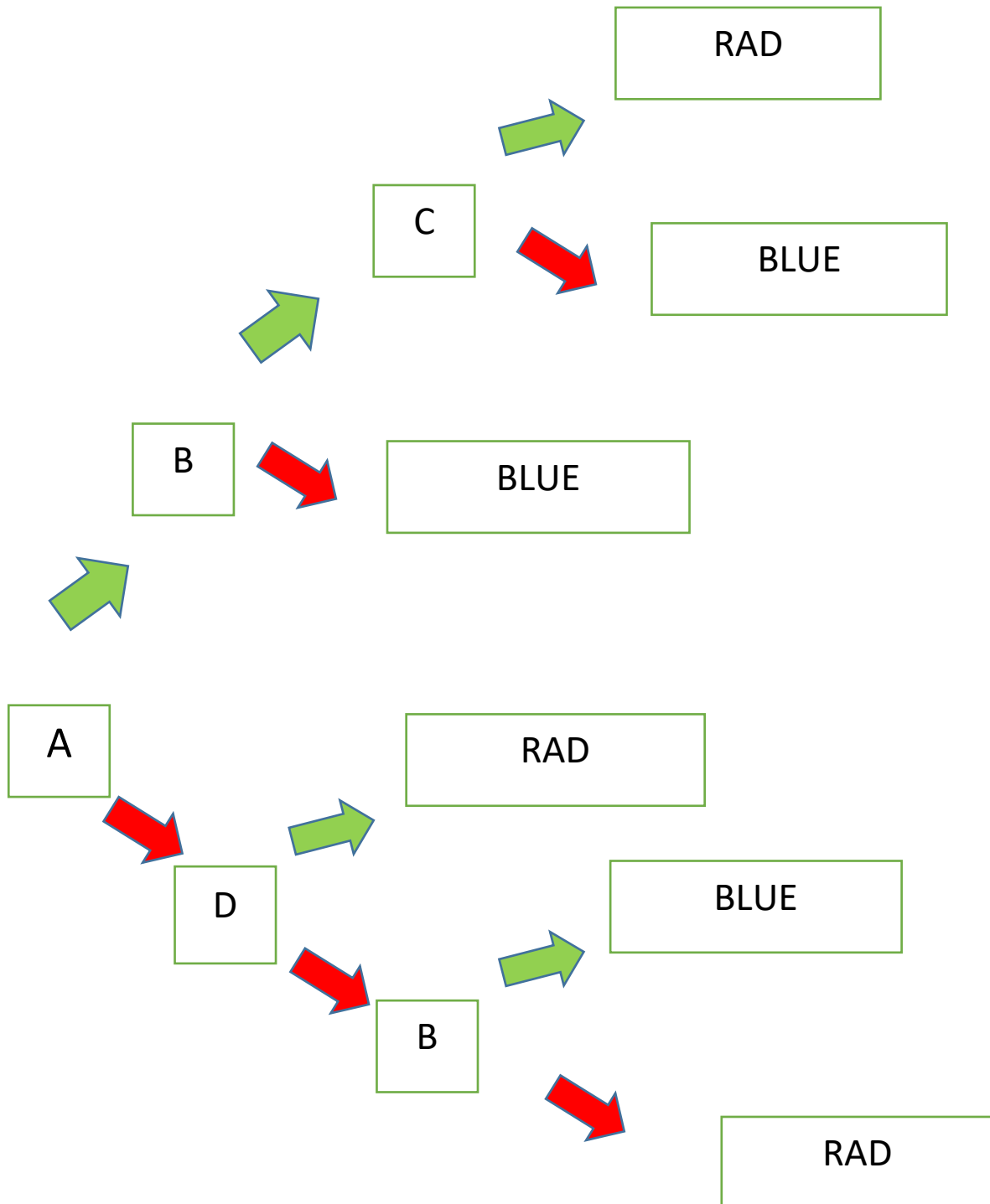
Create the flowchart to express the boolean expression

1. AB or !A!C

| B | FILE |

| A |

| C | HOME |
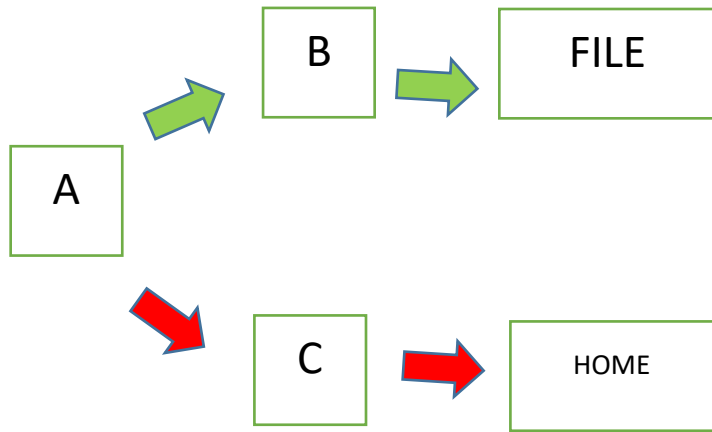
2. A!BCD or AB!CD or !ABCD

| C |

| B | D | INSERT |

| A |

| C |

| B |
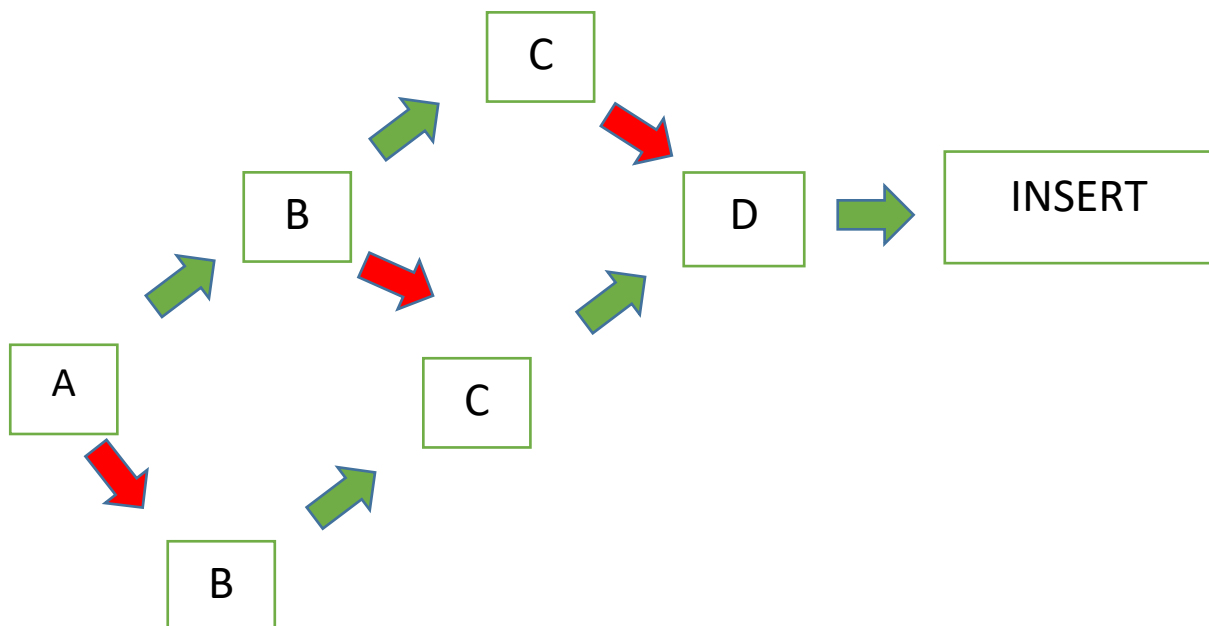
3. ABC!DE!F or A!BCD!EF or !ABCD!E or !A!BC
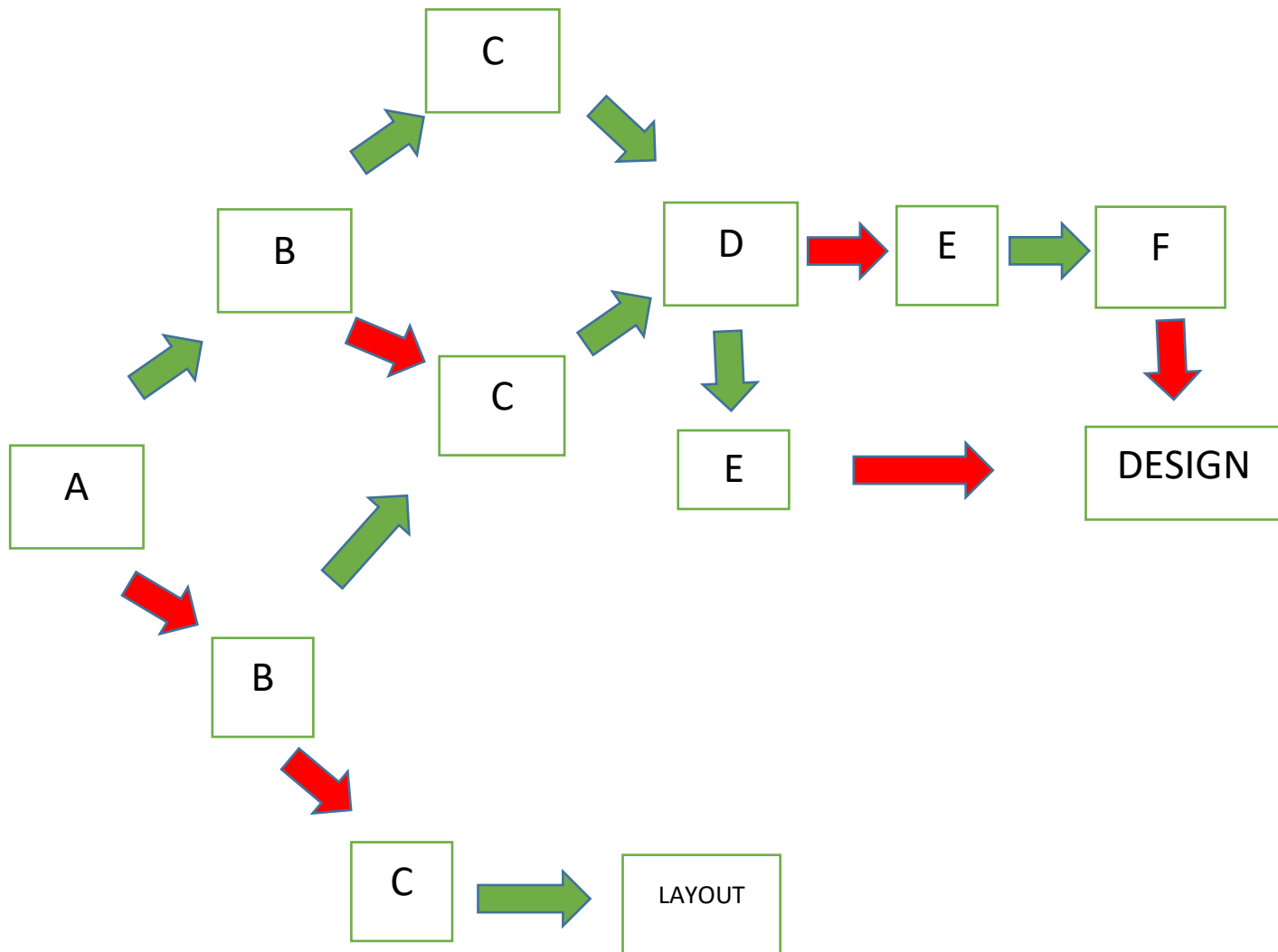
Go to swim = (Sunny AND Sunday) OR (!(Sunny) and Monday and no homework)

```
                                        ┌──────────────┐
                                   ↗    │   Mailing    │
                                        └──────────────┘
                ◇ Sunda ───→            ┌──────────────┐
                                        │   Review     │
          ↗                             └──────────────┘
                                                              ┌──────────────┐
    ◇ Sunny                    ◇ Homework  ───→               │   No swim    │
                                                              └──────────────┘
          ↘                             ───→                  ┌──────────────┐
                ◇ Mond                                        │    Swim      │
                         ───→   ┌──────────────┐              └──────────────┘
                                │   No swim    │
                                └──────────────┘
```

Flowchart:

- X>=0
  - x>10
    - (green/yes) → Blue
    - (red/no) → X<6
      - (red/no) → Blue
      - (green/yes) → Rad
  - (red/no) → x> -2
    - (green/yes) → Black
    - (red/no) → Rad

Number line from -3 to 14:
- Red: -3 to -2
- Black: -2 to 0
- Blue: 0 to 6
- Red: 6 to 10
- Blue: 10 to 14

```
                                              ┌─────────┐
                                        ──►   │   RAD   │
                                              └─────────┘
                          ╱╲
                         ╱Y<2 ╲
                         ╲    ╱          ┌─────────┐
              ╱╲          ╲  ╱      ──►  │  BLACK  │
             ╱X<5 ╲   ──►  ╲╱            └─────────┘
             ╲    ╱
    ──►       ╲  ╱    ──►  ┌──────────┐  ┌─────────┐
   ╱╲          ╲╱          │ NOTHING  │  │ NOTHING │
  ╱x>3 ╲                   └──────────┘  └─────────┘
  ╲    ╱                               ──►
   ╲  ╱                  ╱╲
    ╲╱                  ╱Y<3 ╲        ┌─────────┐
           ──►     ──►  ╲    ╱   ──►  │  BLUE   │
                         ╲  ╱         └─────────┘
          ╱╲              ╲╱
         ╱Y>2 ╲                       ┌─────────┐
         ╲    ╱                       │  BLACK  │
          ╲  ╱    ──►   ╱╲       ──►  └─────────┘
           ╲╱          ╱Y>1 ╲
                       ╲    ╱
                        ╲  ╱          ┌─────────┐
                         ╲╱      ──►  │ NOTHING │
                                      └─────────┘
```