

Exercice 5

1a

rouge
vert
jaune
rouge
jaune

1b

```
def taille_file(F):
    t = 0
    ft = creer_file_vide()
    while not est_vide(F):
        t = t + 1
        enfiler(ft, defiler(F))
    while not est_vide(ft):
        enfiler(F, defiler(ft))
    return t
```

2

```
def former_pile(F):
    p = creer_pile_vide()
    pt = creer_pile_vide()
    while not est_vide(F):
        empiler(pt, defiler(F))
    while not est_vide(pt):
        empiler(p, depiler(pt))
    return p
```

3

```
def nb_elements(F, ele):
    nb = 0
    ft = creer_file_vide()
    while not est_vide(F):
        x = defiler(F)
        if x==ele:
            nb = nb + 1
        enfiler(ft, x)
    while not est_vide(ft):
        enfiler(F, defiler(ft))
    return nb
```

4

```
def verifier_contenu(F, nb_rouge, nb_vert, nb_jaune):
    return nb_elements(F, "rouge") <= nb_rouge and nb_elements(F,
"vert") <= nb_vert and nb_elements(F, "jaune") <= nb_jaune
```