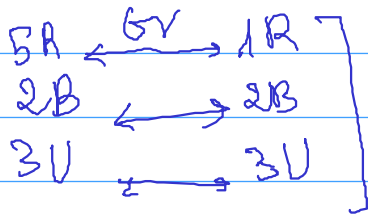


\*\*\*

→ X: "Seules Les rouges sont groupées"



$$\frac{6!}{2! \times 3!} = 60$$

$R \ni \text{○○○○○○○○○○○○○○} \notin X$

R: "les rouges sont groupées"  $|R| = 60$

V: "les verts sont groupés"

B: "les bleus sont groupés"

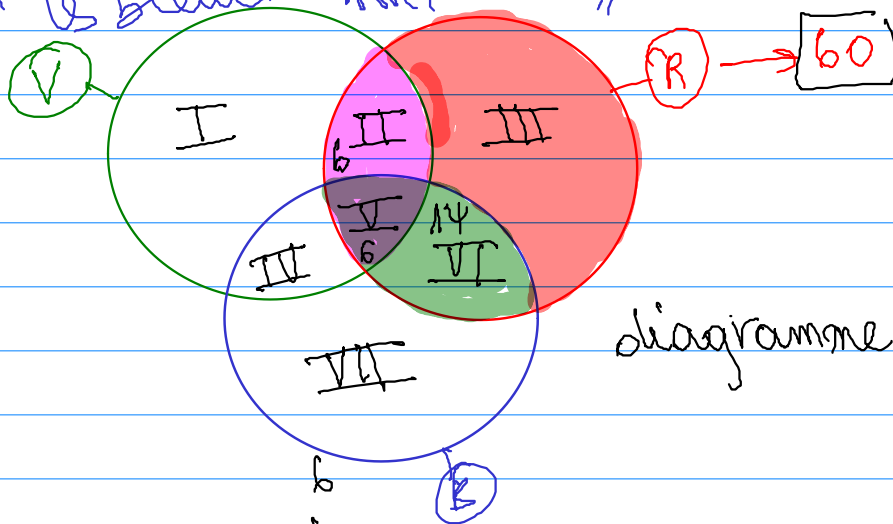
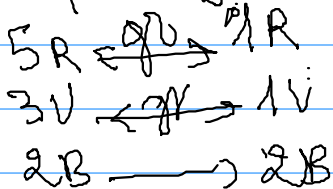


diagramme de Venn

$$\overline{VAR} = \overline{II \cup IV} \rightarrow |II| = |VAR| - |IV| = 12 - 6 = 6$$

$$|VAR| = \frac{4!}{2!} = 12$$



$$B \cap R = \overline{V} \cap \overline{I}$$

$$|B \cap R| = \frac{5!}{3!} = 20$$



$$|VI| = 20 - 6 = 14$$

$$\begin{aligned} |X| &= 60 - (6 + 6 + 14) \\ &= 60 - 26 \\ &= 34 \end{aligned}$$

82 II

Brute Force.

5R  $\sqrt{3V \ 2B}$

3V, 2B

$$\frac{5!}{3! \times 2!} = 10$$

0	←	B	B	V	V	V	
6	←	B	V	B	V	V	
6	←	B	V	V	B	V	
2	←	B	V	V	V	B	
1	←	V	B	B	V	V	
6	←	V	B	V	B	V	
6	←	V	B	V	V	B	
1	←	V	V	B	B	V	
6	←	V	V	B	V	B	
0	←	V	V	V	B	B	

$$6 + 6 + 2 + 1 + 6 + 6 + 1 + 6 = 34$$