(1) a) Non : $\begin{cases} 2\times(-1)-5=-7 \\ 1-2\times(-1)=1+2=3 \end{cases}$

(*) -9 / 5

b) oui $\begin{cases} 2\times 1{,}5-5 = -2 \\ 1-2\times 1{,}5 = -2 \end{cases}$

(2) (a)

10	13	23
16	11	27
26	24	50

(*)

12	13	25
16	9	25
28	22	50

(b) $p_1 = \frac{24}{50} = \boxed{\frac{12}{25}}$ $\quad p_1 = \frac{22}{50} = \boxed{\frac{11}{25}}$

$p_2 = \boxed{\frac{11}{50}}$ $\quad p_2 = \boxed{\frac{9}{50}}$

(3) a) $p(18) = \frac{2}{8} = \boxed{\frac{1}{4}}$

b) $p(18) = \boxed{\frac{2}{7}}$ et $\frac{2}{7} > \frac{1}{4}$

$\frac{2}{7} = \frac{8}{28} \quad \frac{1}{4} = \frac{7}{28}$

(4) (a) $p(R \text{ ou } Verte)$

$= 0{,}15 + 0{,}4 = \boxed{0{,}55}$ $\quad [\overset{*}{0{,}65}]$

(b) $\bar{E}$ est l'événement "on a tiré une boule ni rouge ni verte et donc bleue"

$p(\bar{E}) + p(E) = 1$ donc

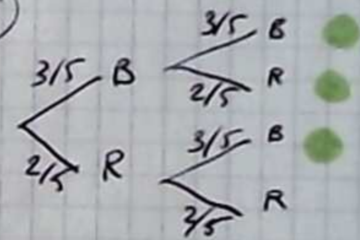
$p(\bar{E}) = 1 - 0{,}65 = \boxed{0{,}45}$ $\quad [\overset{*}{0{,}35}]$

5) (a) $p(V) + p(B) = 1$

donc $p(Bleu) = 1 - \frac{2}{5} = \frac{3}{5}$

(b) oui la probabilité sera $\frac{3}{5}$ supérieure à $p(Bleu)$

(c)



$\frac{3}{5}\times\frac{3}{5} = \frac{9}{25}$

$\frac{3}{5}\times\frac{2}{5} = \frac{6}{25}$

$\frac{2}{5}\times\frac{3}{5} = \frac{6}{25}$

$p(\text{au moins une bleue}) = \frac{9}{25} + \frac{6}{25} + \frac{6}{25}$

$= \boxed{\frac{21}{25}}$

d) $p(Verte) = \frac{8}{\text{nombre total de boules}} = \frac{2}{5}$

$\frac{8}{n} = \frac{2^{\times 4}}{5_{\times 4}} = \frac{8}{20}$ 20 boules au total

$20 - 8 = \boxed{12 \text{ boules bleues}}$

Bonus (1)

$23 - 7 = 16$

$16 \times 2 = \boxed{32}$

Bonus (2)

$p(\text{ne pas choisir } 0) = \frac{1}{4}$

$p(\text{avoir } 0) = 1 - \frac{1}{4} = \boxed{\frac{3}{4}}$