

JUN 94

$R = \text{'Rosa'}$
 $G = \text{'Gladiolo'}$
 $B = \text{'Color Blanco'}$
 $A = \text{'Amarillo'}$
 $GA = \text{'Gladiolo Amarillo'}$
 $GB = \text{'Gladiolo Blanco'}$

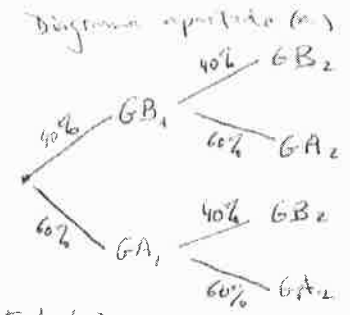
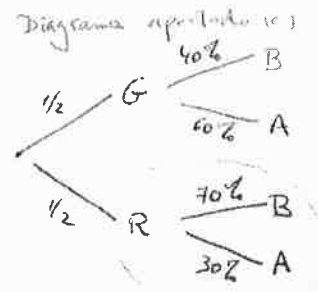


Diagrama apertado (a)

- a) $P(A/R) = 30\% = \boxed{0.3}$
- b) $P(\text{Gladiolos distinto color}) = P(GB_1 \cap GA_2) + P(GA_1 \cap GB_2) = 0.4 \cdot 0.6 + 0.6 \cdot 0.4 = \boxed{0.48}$
- c) $P(B) = P(R) \cdot P(B/R) + P(G) \cdot P(B/G) = \frac{1}{2} \cdot 0.4 + \frac{1}{2} \cdot 0.7 = 0.2 + 0.35 = \boxed{0.55} = \boxed{55\%}$

SEPT 94

$I = \text{'juguete de Importación'}$

- a) $P(\text{Normal}) = P(\bar{I}) = 70\% = \boxed{0.7}$
- b) $P((I_1 \cap \bar{I}_2) \cup (\bar{I}_1 \cap I_2)) = 0.7 \cdot 0.3 + 0.3 \cdot 0.7 = \boxed{0.42}$ (Entiendo que se pide que solo una adquiera juguetes de importación)
- c) $P(I_1 \cap I_2) = 0.3 \cdot 0.3 = \boxed{0.09}$

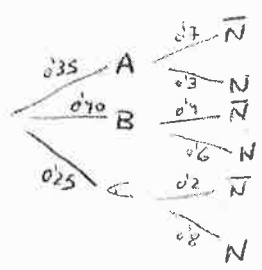
JUN 95

$D = \text{'pieza Defectuosa'}$

- a) $P(\bar{D}) = 1 - P(D) = 1 - \frac{15}{100} = \boxed{\frac{85}{100}}$
- b) $P(D_1 \cap D_2) = \frac{15}{100} \cdot \frac{14}{99} = \frac{210}{9900} = \boxed{\frac{7}{330}}$
- c) $P(\bar{D}_2/D_1) = \boxed{\frac{85}{99}}$

SEPT 95

$A = \text{'óimo marca A'}$
 $B = \text{'" " " B'}$
 $C = \text{'" " " C'}$
 $N = \text{'mercado nacional'}$



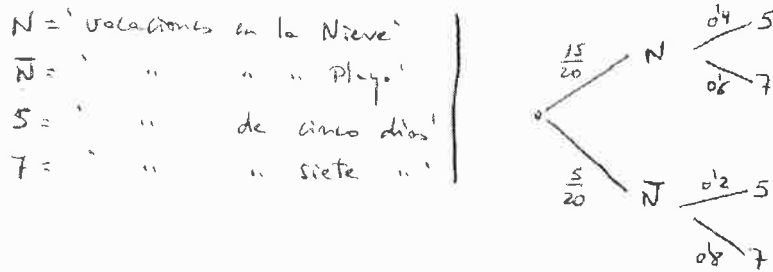
- a) $P(C) = 1 - 0.35 - 0.40 = \boxed{0.25}$
- b) $P(N/A) = \boxed{30\%}$
- c) $P(\bar{N}) = P(A) \cdot P(\bar{N}/A) + P(B) \cdot P(\bar{N}/B) + P(C) \cdot P(\bar{N}/C) = 0.35 + 0.7 + 0.40 \cdot 0.4 + 0.25 \cdot 0.2 = 0.245 + 0.16 + 0.05 = \boxed{0.455}$

JUN 96

$R = \text{'Lapiz Color Rojo'}$
 $A = \text{'" " " Azul'}$

- a) $P(R) = \frac{15}{25} = \boxed{0.6}$
- b) $P(A_1 \cap A_2) = P(A_1) \cdot P(A_2/A_1) = \frac{10}{25} \cdot \frac{9}{24} = \frac{90}{600} = \frac{3}{20} = \boxed{0.15}$
- c) $P(A_1 \cap R_2) = P(A_1) \cdot P(R_2/A_1) = \frac{10}{25} \cdot \frac{15}{24} = \frac{150}{600} = \boxed{0.25}$

SEPT 96

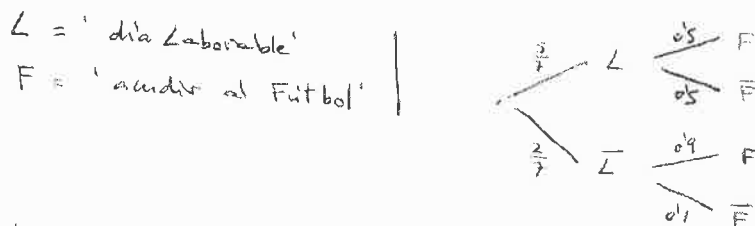


a) $P(\bar{N}) = 1 - \frac{15}{20} = \frac{5}{20} = \frac{1}{4} = \boxed{25\%}$

b) $P(N_1 \cap N_2) = P(N_1) \cdot P(N_2/N_1) = \frac{15}{20} \cdot \frac{14}{19} = \frac{21}{38}$

c) $P(7) = P(N) \cdot P(7/N) + P(\bar{N}) \cdot P(7/\bar{N}) = 0.75 \cdot 0.6 + 0.25 \cdot 0.8 = 0.45 + 0.20 = \boxed{0.65}$

JUN 97



a) $P(\bar{F}) = 1 - \frac{90}{100} = \frac{10}{100} = \boxed{0.1}$

b) $P(F) = P(L) \cdot P(F/L) + P(\bar{L}) \cdot P(F/\bar{L}) = \frac{3}{7} \cdot 0.5 + \frac{2}{7} \cdot 0.9 = \frac{2.5}{7} + \frac{1.8}{7} = \frac{4.3}{7} = \frac{43}{70}$

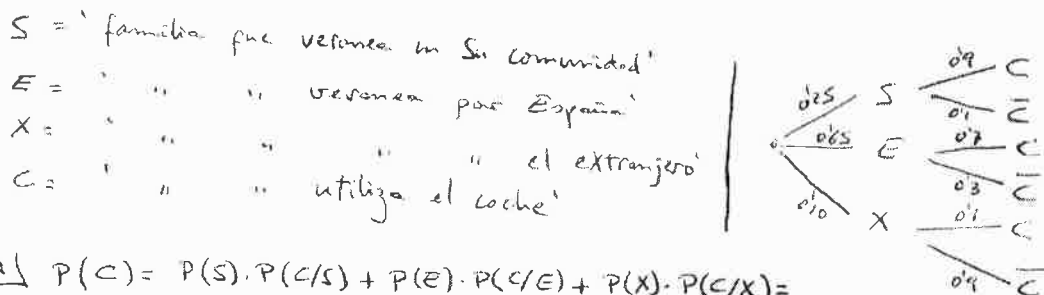
c) $P(\bar{L}/F) = \frac{P(\bar{L} \cap F)}{P(F)} = \frac{P(\bar{L}) \cdot P(F/\bar{L})}{P(F)} = \frac{\frac{2}{7} \cdot 0.9}{\frac{4.3}{7}} = \frac{1.8/70}{43/70} = \frac{18}{43}$

SEPT 97

a) Si la muestra se hiciera sin reposición, cada nueva muestra depende del resultado de las anteriores muestras. Es decir, que no se trataría de una probabilidad binomial. Debe hacerse un muestreo con reposición. Es decir, que podría suceder que se hiciera la encuesta más de una vez a la misma persona.

b) $P(\bar{X}) = \frac{640}{800} = 0.8 = \boxed{80\%} \rightarrow P(\mu) = \boxed{80\%} \rightarrow 80\% \text{ de } 10.000 = \boxed{8.000 \text{ viviendas}}$

JUN 98

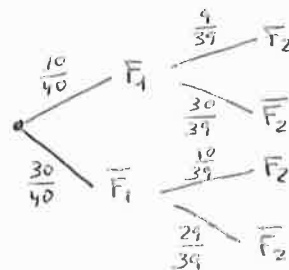
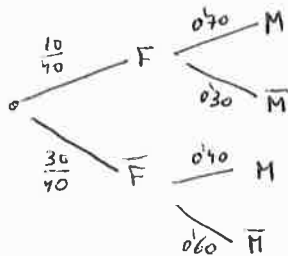


a) $P(C) = P(S) \cdot P(C/S) + P(E) \cdot P(C/E) + P(X) \cdot P(C/X) = 0.25 \cdot 0.9 + 0.65 \cdot 0.7 + 0.1 \cdot 0.1 = 0.225 + 0.455 + 0.01 = \boxed{0.69}$

b) $P(E/\bar{C}) = \frac{P(E \cap \bar{C})}{P(\bar{C})} = \frac{P(E) \cdot P(\bar{C}/E)}{1 - 0.69} = \frac{0.65 \cdot 0.3}{0.31} = \frac{0.195}{0.31} = \frac{195}{310} = \frac{39}{62}$

SEPT 98

F = 'fumados'
M = 'se Mueren'

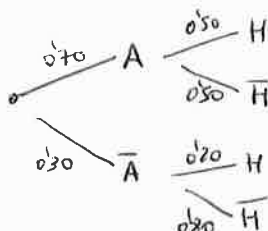


a) $P(\bar{F}_1 \cap \bar{F}_2) = P(\bar{F}_1) \cdot P(\bar{F}_2/\bar{F}_1) = \frac{30}{40} \cdot \frac{29}{39} = \frac{870}{1560} = \frac{29}{52}$

b) $P(\bar{M}) = P(F) \cdot P(\bar{M}/F) + P(\bar{F}) \cdot P(\bar{M}/\bar{F}) = \frac{10}{40} \cdot 0.30 + \frac{30}{40} \cdot 0.60 = \frac{21}{40}$

JUN 99

A = 'Asturiano'
H = 'Hombre'



a) $P(H/\bar{A}) = 80\%$

b) $P(\text{Mujer}) = P(\bar{H}) = P(A) \cdot P(\bar{H}/A) + P(\bar{A}) \cdot P(\bar{H}/\bar{A}) = 0.70 \cdot 0.50 + 0.30 \cdot 0.80 = 0.59$

c) $P(A/H) = \frac{P(A \cap H)}{P(H)} = \frac{P(A) \cdot P(H/A)}{P(A) \cdot P(H/A) + P(\bar{A}) \cdot P(H/\bar{A})} = \frac{0.70 \cdot 0.50}{0.70 \cdot 0.50 + 0.30 \cdot 0.20} = \frac{0.35}{0.41} = \frac{35}{41}$

SEPT 99

C = 'vivir en la Ciudad'
G = 'le gustan las obras'

	G	G-bar	
C	30	30	60
C-bar	30	10	40
	60	40	100

a) $P(C) = \frac{120}{200} = 0.6 = 60\% \rightarrow P(\bar{C}) = 40\%$

$P(C \cap \bar{G}) = P(C) - P(C \cap G) = 60\% - 30\% = 30\%$

$P(\bar{C} \cap \bar{G}) = P(\bar{C}) - P(\bar{C} \cap G) = 40\% - 30\% = 10\%$

$P(G) = P(C \cap G) + P(\bar{C} \cap G) = 30\% + 30\% = 60\% \rightarrow P(\bar{G}) = 40\%$

b) $P(C/G) = \frac{30}{60} = 0.50$

a) $P(G/C) = \frac{30}{60} = 0.50$

JUN 00

$P(\text{Rey} / \text{Figura}) = \frac{4}{12} = \frac{1}{3}$

$P(\text{Rey}) = \frac{4}{40} = \frac{1}{10}$

Como $P(\text{Rey}) \neq P(\text{Rey} / \text{Figura})$ significa que los sucesos 'Ser Rey' y 'Ser Figura' son dependientes

También:

$P(\text{Rey}) = \frac{4}{40} = \frac{1}{10}$

$P(\text{Figura}) = \frac{12}{40} = \frac{3}{10}$

$P(\text{Rey}) \cdot P(\text{Figura}) = \frac{1}{10} \cdot \frac{3}{10} = \frac{3}{100}$

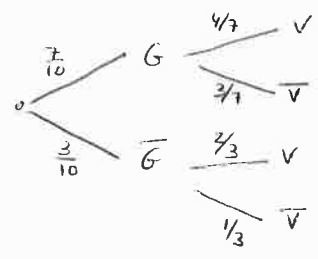
$P(\text{Rey} \cap \text{Figura}) = \frac{4}{40} = \frac{1}{10}$

distintas.

Como $P(\text{Rey} \cap \text{Figura}) \neq P(\text{Rey}) \cdot P(\text{Figura})$, significa que los sucesos 'Ser Rey' y 'Ser figura' son dependientes

SEPT 00

G = 'partido Gobernante'
V = 'voto'



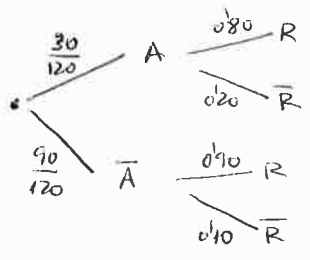
$$P(G/V) = \frac{P(G \cap V)}{P(V)} = \frac{P(G) \cdot P(V/G)}{P(G) \cdot P(V/G) + P(\bar{G}) \cdot P(V/\bar{G})} = \frac{\frac{7}{10} \cdot \frac{4}{7}}{\frac{7}{10} \cdot \frac{4}{7} + \frac{3}{10} \cdot \frac{2}{3}} = \frac{4/10}{4/10 + 2/10} = \frac{2}{3}$$

$$P(\bar{G}/V) = 1 - P(G/V) = 1 - \frac{2}{3} = \frac{1}{3}$$

Si el presidente ha sido un hombre, tiene más posibilidades de que pertenezca al partido del gobierno. Concretamente su probabilidad es doble que la del partido de la oposición.

JUN 01

A = 'aquejados con dicha enfermedad con Anterioridad'
R = 'Reaccionar positivamente al nuevo tratamiento'



$$a) P(A_1 \cap A_2) = P(A_1) \cdot P(A_2/A_1) = \frac{30}{120} \cdot \frac{29}{119} = \frac{29}{476}$$

$$b) P(\bar{R}) = P(A) \cdot P(\bar{R}/A) + P(\bar{A}) \cdot P(\bar{R}/\bar{A}) = \frac{30}{120} \cdot 0.20 + \frac{90}{120} \cdot 0.10 = \frac{15}{120} = \frac{1}{8}$$

$$c) P(\bar{A}/R) = \frac{P(\bar{A} \cap R)}{P(R)} = \frac{P(\bar{A}) \cdot P(R/\bar{A})}{P(A) \cdot P(R/A) + P(\bar{A}) \cdot P(R/\bar{A})} = \frac{\frac{90}{120} \cdot 0.90}{\frac{30}{120} \cdot 0.80 + \frac{90}{120} \cdot 0.90} = \frac{81/120}{105/120} = \frac{81}{105} = \frac{27}{35}$$

SEPT 01

C = 'haber recibido ya algún curso de informática'
O = 'tener ordenador en casa'

$$a) \left. \begin{aligned} P(C) &= \frac{40}{100} \\ P(O|C) &= \frac{20}{100} \\ P(O|\bar{C}) &= \frac{10}{100} \end{aligned} \right\} \Rightarrow P(O \cap C) = P(C) \cdot P(O|C) = \frac{40}{100} \cdot \frac{20}{100} = \frac{8}{100} = \frac{0.08}{1} = 8\%$$

	O	O-bar	
C	8	32	40
C-bar	10	50	60
	18	82	100

$$b) P(O) = P(C \cap O) + P(\bar{C} \cap O) = 8\% + 10\% = \frac{18\%}{100} \Rightarrow P(O) = 18\%$$

$$P(\bar{C}) = 100\% - 40\% = 60\%$$

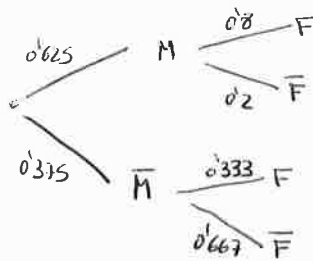
$$P(C \cap \bar{O}) = P(C) - P(C \cap O) = 40\% - 8\% = 32\%$$

$$P(\bar{C} \cap \bar{O}) = P(\bar{C}) - P(\bar{C} \cap O) = 60\% - 10\% = 50\%$$

$$b) P(C/O) = \frac{8}{18} = \frac{4}{9}$$

JUN 02

M = 'Aprobar Matemáticas'
F = ' " Física'



a) $P(M \cap F) = P(M) \cdot P(F|M) = 0.625 \cdot 0.8 = \boxed{0.50}$

b) $P(F) = P(M) \cdot P(F|M) + P(\bar{M}) \cdot P(F|\bar{M}) = 0.625 \cdot 0.8 + 0.375 \cdot 0.333 = \boxed{0.625} = \boxed{62.5\%}$

c) $P(M|F) = \frac{P(M \cap F)}{P(F)} = \frac{P(M) \cdot P(F|M)}{P(M) \cdot P(F|M) + P(\bar{M}) \cdot P(F|\bar{M})} = \frac{0.625 \cdot 0.8}{0.625 \cdot 0.8 + 0.375 \cdot 0.333} = \frac{0.50}{0.625} = \boxed{0.8}$

SEPT 02

E = 'Tener Experiencia'
F = 'Tener Formación'

a) $P(E \cap F) = 70\%$
 $P(E \cap \bar{F}) = 20\%$
 $P(E|F) = 87.5\%$
 $P(E) = P(E \cap F) + P(E \cap \bar{F}) = 70\% + 20\% = 90\% \Rightarrow \boxed{P(\bar{E}) = 10\%}$

	E	\bar{E}	
F	70		
\bar{F}	20		
	90	10	100

c) $P(E|F) = \frac{P(E \cap F)}{P(F)}$

$0.875 = \frac{0.70}{P(F)} \Rightarrow P(F) = \frac{0.70}{0.875} = \boxed{0.8} = 80\% \rightarrow P(\bar{F}) = 20\%$

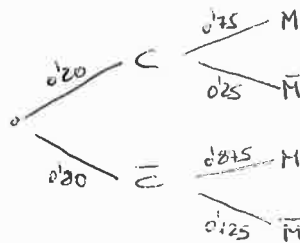
	E	\bar{E}	
F	70	10	80
\bar{F}	20	0	20
	90	10	100

$P(F \cap \bar{E}) = P(F) - P(E \cap F) = 80\% - 70\% = 10\%$
 $P(\bar{F} \cap \bar{E}) = P(\bar{F}) - P(\bar{F} \cap E) = 20 - 20 = 0$

b) $P(F|E) = \frac{70}{90} = \boxed{\frac{7}{9}}$

JUN 03

C = 'Gustar la música Clásica'
M = ' " " " Moderna'



a) $P(M) = P(C) \cdot P(M|C) + P(\bar{C}) \cdot P(M|\bar{C}) = 0.2 \cdot 0.75 + 0.8 \cdot 0.875 = \boxed{0.85}$

b) $P(C \cap M) = 0.20 \cdot 0.75 = \boxed{0.15}$

c) $P(C|M) = \frac{P(C \cap M)}{P(M)} = \frac{0.15}{0.85} = \boxed{\frac{3}{17}} = 0.176$

d) $P(C|\bar{M}) = \frac{P(C \cap \bar{M})}{P(\bar{M})} = \frac{P(C) \cdot P(\bar{M}|C)}{1 - P(M)} = \frac{0.20 \cdot 0.25}{1 - 0.85} = \frac{0.05}{0.15} = \boxed{\frac{1}{3}}$

*
SEPT 03

M = 'La Mujer tiene estudios universitarios'
H = 'El Hombre'

$P(M) = 50\%$

$P(M \cap H) = 30\%$

$P(M/H) = 37.5\%$

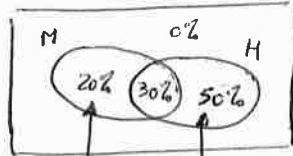
a)

$P(M/H) = \frac{P(M \cap H)}{P(H)}$

$0.375 = \frac{0.30}{P(H)} \Rightarrow P(H) = \frac{0.30}{0.375} = 0.8 = 80\%$

b) $P(H/M) = \frac{P(H \cap M)}{P(M)} = \frac{0.30}{0.50} = 0.6$

c)



$P(M \cap \bar{H}) = P(M) - P(M \cap H) = 50\% - 30\% = 20\%$

$P(H \cap \bar{M}) = P(H) - P(H \cap M) = 80\% - 30\% = 50\%$

JUN 04

M = 'Les han puesto una Multa de Tráfico'
A = 'Han tenido un Accidente'

$P(M) = 50\% \rightarrow P(\bar{M}) = 50\%$

$P(\bar{M} \cap A) = 12.5\%$

$P(\bar{M}/\bar{A}) = 60\%$

$P(\bar{M} \cap A) = P(\bar{M}) \cdot P(A/\bar{M})$

$0.125 = 0.50 \cdot P(A/\bar{M}) \Rightarrow P(A/\bar{M}) = \frac{0.125}{0.5} = 0.25$

↓

$\therefore P(\bar{A}/\bar{M}) = 0.75$

a) $P(\bar{A} \cap \bar{M}) = P(\bar{M}) \cdot P(\bar{A}/\bar{M}) = 0.50 \cdot 0.75 = 0.375 = 37.5\%$

b) $P(\bar{M}/\bar{A}) = \frac{P(\bar{M} \cap \bar{A})}{P(\bar{A})}$

$0.60 = \frac{0.375}{P(\bar{A})} \Rightarrow P(\bar{A}) = \frac{0.375}{0.60} = 0.625 = 62.5\%$

*
SEPT 04

C = 'Casado'
T = 'tiene Trabajo'

$P(C) = 80\%$

$P(T/C) = 75\%$

$P(\bar{C} \cap \bar{T}) = 5\%$

$P(T/C) = \frac{P(T \cap C)}{P(C)}$

$0.75 = \frac{P(T \cap C)}{0.80} \Rightarrow P(T \cap C) = 0.75 \cdot 0.80 = 0.60 = 60\%$

$P(\bar{C}) = 100\% - 80\% = 20\%$

$P(\bar{C} \cap T) = P(\bar{C}) - P(\bar{C} \cap \bar{T}) = 20\% - 5\% = 15\%$

a) $P(\bar{T}) = P(\bar{C} \cap T) + P(\bar{C} \cap \bar{T}) = 15\% + 5\% = 20\%$

$P(T) = 100\% - 20\% = 80\%$

$P(\bar{C} \cap \bar{T}) = P(\bar{C}) - P(\bar{C} \cap T) = 20\% - 15\% = 5\%$

b) $P(C/T) = \frac{60}{75} = 0.8$

c) $P(C/\bar{T}) = \frac{20}{25} = 80\%$

	T	\bar{T}	
C	60	20	80
\bar{C}	15	5	20
	75	25	100

Junos

H = 'pagan hipoteca'

D = 'pagan un préstamo'

P(H) = 75%

P(D/H) = 10%

P(H/D) = 60%

a) $P(D \cap H) = P(H) \cdot P(D/H) = 75\% \cdot 10\% = \boxed{7.5\%} = 0.075$

b) $P(H/D) = \frac{P(H \cap D)}{P(D)}$

$0.60 = \frac{0.075}{P(D)} \Rightarrow P(D) = \frac{0.075}{0.6} = \boxed{12.5\%}$

	H	H̄	
D	7.5	5	12.5
D̄	67.5	20	87.5
	75	25	100

$P(\bar{H}) = 100\% - 75\% = 25\%$

$P(D \cap \bar{H}) = P(D) - P(D \cap H) = 12.5\% - 7.5\% = 5\%$

$P(\bar{D} \cap H) = P(H) - P(D \cap H) = 75\% - 7.5\% = 67.5\%$

$P(\bar{D} \cap \bar{H}) = P(\bar{H}) - P(D \cap \bar{H}) = 25\% - 5\% = 20\%$

$P(\bar{D}) = 100\% - 12.5\% = 87.5\%$

c) $P(D/\bar{H}) = \frac{5}{25} = \frac{1}{5} = 0.2 = \boxed{20\%}$

Sept 05

G = 'Tiene Garantía'

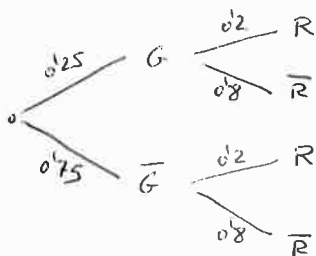
R = 'Fueron Reparados en otra ocasión'

P(G) = 25%

P(R/Ḡ) = 20%

P(G ∩ R) = 5%

$P(R/G) = \frac{P(R \cap G)}{P(G)} = \frac{0.05}{0.25} = 0.2$



a) $P(R) = P(G) \cdot P(R/G) + P(\bar{G}) \cdot P(R/\bar{G}) = 0.25 \cdot 0.2 + 0.75 \cdot 0.2 = 0.2 = \boxed{20\%}$

b) $P(\bar{R} \cap \bar{G}) = P(\bar{G}) \cdot P(\bar{R}/\bar{G}) = 0.75 \cdot 0.8 = 0.6 = \boxed{60\%}$

c) $P(G/R) = \frac{P(G \cap R)}{P(R)} = \frac{0.05}{0.20} = \boxed{0.25}$

También:

$P(G) = 25\% \rightarrow P(\bar{G}) = 75\%$
 $P(R/\bar{G}) = 20\% \rightarrow P(R \cap \bar{G}) = P(\bar{G}) \cdot P(R/\bar{G}) = 0.75 \cdot 0.20 = 0.15$

	G	Ḡ	
R	5	15	20
R̄	20	60	80
	25	75	100

b) $P(\bar{R} \cap \bar{G}) = P(\bar{G}) - P(R \cap \bar{G}) = 75\% - 15\% = \boxed{60\%}$

$P(G \cap \bar{R}) = P(G) - P(G \cap R) = 25\% - 5\% = 20\%$

a) $P(R) = P(R \cap G) + P(R \cap \bar{G}) = 5\% + 15\% = \boxed{20\%}$

$P(\bar{R}) = 100\% - 20\% = 80\%$

c) $P(G/R) = \frac{5}{20} = \boxed{0.25}$

* JUN 06

M = 'Trabajos a Media jornada'

C = 'Tener Contrato Temporal'

$P(M \cap C) = 30\%$

$P(M) = 40\%$

$P(M|C) = 40\%$

a)

$P(M|C) = \frac{P(M \cap C)}{P(C)}$

$0.40 = \frac{0.30}{P(C)} \Rightarrow P(C) = \frac{0.30}{0.40} = \boxed{0.75} = 75\%$

	C	\bar{C}	
M	30	15	40
\bar{M}	45	15	60
	75	25	100

$P(\bar{C}) = 100\% - 75\% = 25\%$

$P(\bar{M}) = 100\% - 40\% = 60\%$

b) $P(\bar{M} \cap C) = P(C) - P(M \cap C) = 75\% - 30\% = \boxed{45\%}$

$P(\bar{M} \cap \bar{C}) = P(\bar{M}) - P(\bar{M} \cap C) = 60\% - 45\% = 15\%$

$P(M \cap \bar{C}) = P(M) - P(M \cap C) = 40\% - 30\% = 10\%$

c) $P(C|\bar{M}) = \frac{45}{60} = \frac{3}{4} = \boxed{75\%}$

* JUN 07

V = 'Tener Video'

D = 'Tener DVD'

$P(V \cap D) = 30\%$

$P(V \cap \bar{D}) = 50\%$

$P(V|D) = 75\%$

c)

$P(V|D) = \frac{P(V \cap D)}{P(D)}$

$0.75 = \frac{0.30}{P(D)} \Rightarrow P(D) = \frac{0.30}{0.75} = 0.40 = \boxed{40\%}$

	D	\bar{D}	
V	30	50	80
\bar{V}	10	10	20
	40	60	100

a) $P(V) = P(V \cap D) + P(V \cap \bar{D}) = 30\% + 50\% = \boxed{80\%}$

$P(\bar{V}) = 100\% - 80\% = 20\%$

$P(\bar{D}) = 100\% - 40\% = 60\%$

$P(\bar{V} \cap D) = P(D) - P(V \cap D) = 40\% - 30\% = 10\%$

$P(\bar{V} \cap \bar{D}) = P(\bar{D}) - P(\bar{V} \cap D) = 60\% - 10\% = 50\%$

b) $P(D|V) = \frac{30}{80} = 0.375 = \boxed{37.5\%}$

* SEPT 07

C = 'Estar Casados'

H = 'Tener Hijos'

$P(C \cap H) = 38\%$

$P(\bar{C}) = 22\%$

$P(C|H) = 95\%$

a)

$P(C|H) = \frac{P(C \cap H)}{P(H)}$

$0.95 = \frac{0.38}{P(H)} \Rightarrow P(H) = \frac{0.38}{0.95} = 0.4 = \boxed{40\%}$

	H	\bar{H}	
C	38	40	78
\bar{C}	2	20	22
	40	60	100

$P(C) = 100\% - 22\% = 78\%$

b) $P(\bar{C} \cap H) = P(H) - P(C \cap H) = 40\% - 38\% = \boxed{2\%}$

$P(C \cap \bar{H}) = P(C) - P(C \cap H) = 78\% - 38\% = 40\%$

c) $P(\bar{C} \cap \bar{H}) = P(\bar{C}) - P(\bar{C} \cap H) = 22\% - 2\% = \boxed{20\%}$

JUN 08

C = 'Cambiar de Coche'

D = 'Cambiar de Domicilio'

$P(C \cap D) = 10\%$

$P(\bar{C} \cap D) = 50\%$

$P(D|C) = 25\%$



b)

$P(D|C) = \frac{P(C \cap D)}{P(C)}$

$0.25 = \frac{0.10}{P(C)} \Rightarrow P(C) = \frac{0.10}{0.25} = \boxed{0.4} = 40\%$

	D	\bar{D}	
C	10	30	40
\bar{C}	50	10	60
	60	40	100

a) $P(D) = P(C \cap D) + P(\bar{C} \cap D) = 10\% + 50\% = \boxed{60\%}$

$P(\bar{D}) = 100\% - 60\% = 40\%$

$P(\bar{C}) = 100\% - 40\% = 60\%$

$P(C \cap \bar{D}) = P(C) - P(C \cap D) = 40\% - 10\% = 30\%$

$P(\bar{C} \cap \bar{D}) = P(\bar{C}) - P(\bar{C} \cap D) = 60\% - 50\% = 10\%$

c) $P(C|\bar{D}) = \frac{30}{40} = 0.75 = \boxed{75\%}$

SEPT 08

B = 'Tener Buena ortografía'

H = '... Hábito de Lectura'

	H	\bar{H}	
B	20	5	25
\bar{B}	5	70	75
	25	75	100

a) $P(B) = P(B \cap H) + P(B \cap \bar{H}) = 20\% + 5\% = 25\% = \boxed{0.25}$

b) $P(\bar{B}|\bar{H}) = P(\bar{H}) - P(B \cap \bar{H}) = 75\% - 5\% = \boxed{70\%}$

$P(H) = 100\% - 75\% = 25\%$

$P(\bar{B}) = 100\% - 25\% = 75\%$

$P(\bar{B} \cap H) = P(\bar{B}) - P(\bar{B} \cap \bar{H}) = 75\% - 70\% = 5\%$

c) $P(B|H) = \frac{20}{25} = 0.8 = \boxed{80\%}$

JUN 09

F = 'Gustar la Fruta'

V = '... " " Verdura'

	F	\bar{F}	
V	25	15	40
\bar{V}	20	40	60
	45	55	100

$P(\bar{V}) = P(\bar{V} \cap F) + P(\bar{V} \cap \bar{F}) = 20\% + 40\% = 60\%$

b) $P(V) = 100\% - 60\% = \boxed{40\%}$

$P(F) = P(V \cap F) + P(\bar{V} \cap F) = 15\% + 40\% = \boxed{55\%}$

$P(\bar{F}) = 100\% - 55\% = 45\%$

a) $P(V \cap F) = P(F) - P(\bar{V} \cap F) = 55\% - 20\% = \boxed{25\%}$

c) $P(V|F) = \frac{25}{55} = \frac{5}{11} = \boxed{55.55\%}$

SEPT 09

V = 'Vivir en casa de sus padres'
T = 'Trabajar'

$P(V) = 60\% \rightarrow P(\bar{V}) = 40\%$
 $P(\bar{T}/\bar{V}) = 25\%$
 $P(\bar{T}/T) = 20\%$

a) $P(\bar{V} \cap \bar{T}) = P(\bar{V}) \cdot P(\bar{T}/\bar{V}) = 40\% \cdot 25\% = 10\%$
 b) $P(\bar{V}/\bar{T}) = \frac{P(\bar{V} \cap \bar{T})}{P(\bar{T})}$

$0.20 = \frac{0.10}{P(\bar{T})} \Rightarrow P(\bar{T}) = \frac{0.10}{0.20} = 0.50 = 50\%$

	V	\bar{V}	
T		30	50
\bar{T}		10	50
	60	40	100

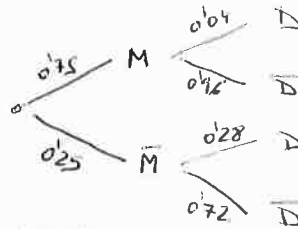
$P(T) = 100\% - 50\% = 50\%$

$P(T \cap \bar{V}) = P(\bar{V}) - P(\bar{V} \cap \bar{T}) = 40\% - 10\% = 30\%$

c) $P(\bar{V}/T) = \frac{30}{50} = 60\%$

JUN 10 fase general

M = 'Mujer'
D = 'persona divorciada'

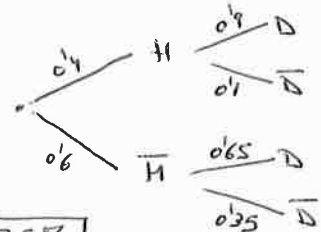


a) $P(D) = 0.75 \cdot 0.04 + 0.25 \cdot 0.28 = 0.11$

b) $P(M/D) = \frac{P(M \cap D)}{P(D)} = \frac{0.75 \cdot 0.04}{0.11} = 0.3$

JUN 10 fase general

H = 'cliente Hombre'
D = 'estancia de menos de dos horas'



a) $P(D) = P(H) \cdot P(D/H) + P(\bar{H}) \cdot P(D/\bar{H}) = 0.4 \cdot 0.4 + 0.6 \cdot 0.65 = 0.75 = 75\%$

b) $P(\bar{H}/D) = \frac{P(\bar{H} \cap D)}{P(D)} = \frac{P(\bar{H}) \cdot P(D/\bar{H})}{P(D)} = \frac{0.6 \cdot 0.65}{0.75} = \frac{0.39}{0.75} = \frac{13}{25} = 52\%$

JUN 10 fase específica

I = 'Programación Infantil'
L = 'intermedios Lugares'

$P(I) = 10\%$

$P(L/I) = 20\%$

$P(I/L) = 2.5\%$

a) $P(I \cap L) = P(I) \cdot P(L/I) = 10\% \cdot 20\% = 0.02$

b) $P(I/L) = \frac{P(I \cap L)}{P(L)}$

$0.025 = \frac{0.02}{P(L)} \Rightarrow P(L) = \frac{0.02}{0.025} = 0.8$

SEPT 10 fase general

D = 'se Declaró culpable'
C = 'tuvo pena de cárcel'

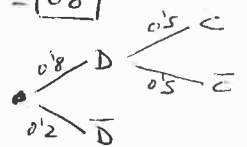
$P(D \cap C) = 40\%$

$P(C/D) = 50\%$

a) $P(C/D) = \frac{P(D \cap C)}{P(D)}$

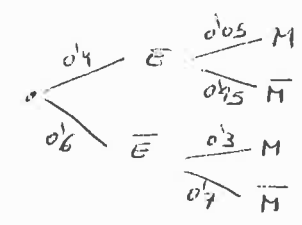
$0.50 = \frac{0.40}{P(D)} \Rightarrow P(D) = \frac{0.40}{0.50} = 0.8$

b) $P(D \cap \bar{C}) = P(D) \cdot P(\bar{C}/D) = P(D) \cdot [1 - P(C/D)] = 0.8 \cdot (1 - 0.5) = 0.40$



SEPT 10
fase general

\bar{E} = 'crédito concedido - Empresas'
 M = 'crédito moroso'



a) $P(M) = P(E) \cdot P(M/E) + P(\bar{E}) \cdot P(M/\bar{E}) = 0.4 \cdot 0.05 + 0.6 \cdot 0.3 = 0.2$

b) $P(E/M) = \frac{P(E \cap M)}{P(M)} = \frac{P(E) \cdot P(M/E)}{P(M)} = \frac{0.4 \cdot 0.05}{0.2} = \frac{0.02}{0.2} = 0.1 = 10\%$

SEPT 10
fase específica

\bar{E} = 'ser Español'
 C = 'tener carnet de conducir'

	C	\bar{C}	
E	84	96	
\bar{E}	87	100	

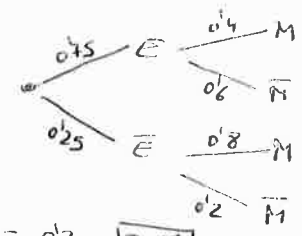
a) $P(E \cap \bar{C}) = P(E) - P(E \cap C) = 96\% - 84\% = 12\%$

b) $P(C/\bar{E}) = \frac{87}{100} = 87.5\%$

(El resto de la Table de contingencia no se necesita)

SEPT 10
fase específica

\bar{E} = 'viaje a España'
 M = ' " " " Media pensión'



a) $P(\bar{E} \cap M) = P(\bar{E}) \cdot P(M/\bar{E}) = 0.25 \cdot 0.8 = 0.2 = 20\%$

b) $P(M) = P(E) \cdot P(M/E) + P(\bar{E}) \cdot P(M/\bar{E}) = 0.75 \cdot 0.4 + 0.25 \cdot 0.8 = 0.5 = 50\%$

JUL 11
fase general

E = 'español'
 \bar{E} = 'extranjero'
 A = 'viaje en avión'

$P(\bar{E} \cap A) = 0.05$

$P(\bar{E}) = 0.20$

$P(E) = 0.80$

$P(E/A) = 0.25$

$P(E/A) = \frac{P(E \cap A)}{P(A)}$; $P(A) = \frac{P(\bar{E} \cap A)}{P(E/A)} = \frac{0.05}{0.25} = 0.2$

a)

b)

	A	\bar{A}	
E	0.05	0.75	0.80
\bar{E}	0.15	0.05	0.20
	0.2	0.8	1

$P(\bar{A}) = 1 - P(A) = 0.8$

$P(A \cap \bar{E}) = 0.2 - 0.05 = 0.15$

$P(E/\bar{A}) = P(E) - P(A \cap E) = 0.80 - 0.05 = 0.75$

$P(\bar{E} \cap \bar{A}) = P(\bar{E}) - P(E \cap \bar{A}) = 0.20 - 0.15 = 0.05$

$P(A/\bar{E}) = \frac{P(A \cap \bar{E})}{P(\bar{E})} = \frac{0.15}{0.20} = 0.75$

JUN 11
fase
específica

T = "vino tinto"
E = "vino de origen español"

a) $P(T|E) = 0.42$
 $P(T|\bar{E}) = 0.60$ \rightarrow $P(T|E) = \frac{P(T \cap E)}{P(E)} \Rightarrow P(E) = \frac{P(T \cap E)}{P(T|E)} = \frac{0.42}{0.60} = \boxed{0.7}$

b)

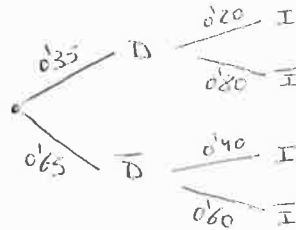
	E	\bar{E}
T	0.42	
\bar{T}		
	0.7	1

$P(\bar{E}|T) = P(E) - P(T \cap E) = 0.7 - 0.42 = \boxed{0.28}$

JUN 11
fase
específica

D = "práctica deporte"
I = "clases de inglés"

$P(D) = 0.35$
 $P(I|D) = 0.20$
 $P(I|\bar{D}) = 0.40$



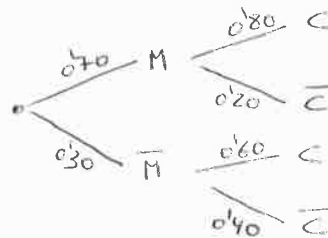
a) $P(\bar{D}|I) = P(\bar{D}) \cdot P(I|\bar{D}) = (1 - 0.35) \cdot 0.40 = 0.65 \cdot 0.40 = \boxed{0.26} = \boxed{26\%}$

b) $P(I) = P(D) \cdot P(I|D) + P(\bar{D}) \cdot P(I|\bar{D}) =$
 $= 0.35 \cdot 0.20 + 0.65 \cdot 0.40 = \boxed{0.33} = \boxed{33\%}$

JUL 11
fase
general

M = "tomar el menú"
C = "tomar café"

$P(M) = 0.70$
 $P(C|M) = 0.80$
 $P(C|\bar{M}) = 0.60$



a) $P(M \cap C) = P(M) \cdot P(C|M) = 0.70 \cdot 0.80 = \boxed{0.56} = \boxed{56\%}$

b) $P(\bar{C}) = P(M) \cdot P(\bar{C}|M) + P(\bar{M}) \cdot P(\bar{C}|\bar{M}) =$
 $= 0.70 \cdot 0.20 + 0.30 \cdot 0.40 = 0.14 + 0.12 = \boxed{0.26} = \boxed{26\%}$

**
JUL 11
fase
general

T = "pagar con tarjeta"
D = "compra de vuelta"

a) $P(T) = 0.60$
 $P(D|T) = 0.10$ \rightarrow $P(D|T) = \frac{P(T \cap D)}{P(T)} \rightarrow P(T \cap D) = P(T) \cdot P(D|T) = 0.60 \cdot 0.10 = \boxed{0.06}$
 $P(T|\bar{D}) = 0.50$

b) $P(T|\bar{D}) = \frac{P(T \cap \bar{D})}{P(\bar{D})} \rightarrow P(\bar{D}) = \frac{P(T \cap \bar{D})}{P(T|\bar{D})} = \frac{0.06}{0.50} = \boxed{0.12}$

JUL 11
fase
específica

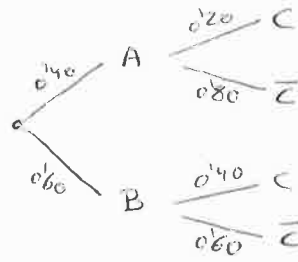
A = "individuo del grupo A"
B = "individuo del grupo B"
C = "comprar determinado producto"

$$P(A) = 0.40$$

$$P(B) = 0.60 \text{ Por lo tanto } B = \bar{A}$$

$$P(C/A) = 0.20$$

$$P(C/B) = 0.40$$



$$a) P(C) = P(A) \cdot P(C/A) + P(B) \cdot P(C/B) = 0.40 \cdot 0.20 + 0.60 \cdot 0.40 = 0.08 + 0.24 = \boxed{0.32}$$

$$b) P(\bar{C} \cap B) = P(B) \cdot P(\bar{C}/B) = 0.60 \cdot 0.60 = \boxed{0.36}$$

JUN 12
fase
general

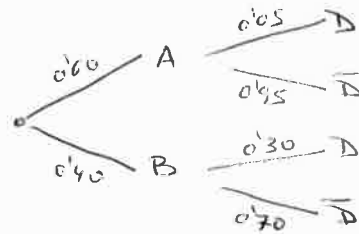
A = "pieza fabricada por máquina A"
B = " " " " " B"
D = " " defectuosa"

$$P(A) = 0.60$$

$$P(B) = 0.40$$

$$P(D/A) = 0.05$$

$$P(D/B) = 0.30$$



$$a) P(D) = P(A) \cdot P(D/A) + P(B) \cdot P(D/B) = 0.60 \cdot 0.05 + 0.40 \cdot 0.30 = \boxed{0.15}$$

$$b) P(A/D) = \frac{P(A \cap D)}{P(D)} = \frac{P(A) \cdot P(D/A)}{P(D)} = \frac{0.60 \cdot 0.05}{0.15} = \boxed{0.2}$$

JUN 12
fase
general

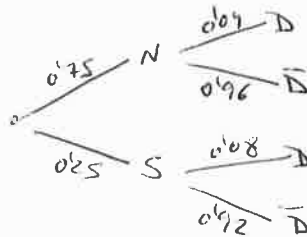
N = "cliente de zona Norte"
S = " " " " Sur"
D = " " que no paga la póliza"

$$P(N) = 0.75$$

$$P(S) = 0.25$$

$$P(D/N) = 0.04$$

$$P(D/S) = 0.08$$



$$a) P(N \cap D) = P(N) \cdot P(D/N) = 0.75 \cdot 0.04 = \boxed{0.03}$$

$$b) P(N/D) = \frac{P(N \cap D)}{P(D)} = \frac{P(N \cap D)}{P(N) \cdot P(D/N) + P(S) \cdot P(D/S)} = \frac{0.03}{0.03 + 0.25 \cdot 0.08} = \boxed{0.6}$$

JUN 12
fase
específica

S = "Concurso Spain"
I = " " " en Inglés"

$$P(S|I) = 0.14$$

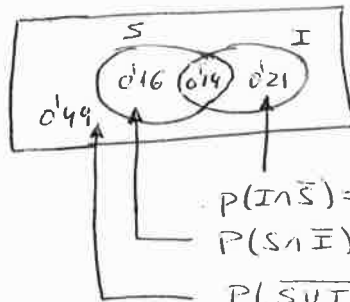
$$P(\bar{S}) = 0.70$$

$$P(S/I) = 0.40 \rightarrow P(S/I) = \frac{P(S \cap I)}{P(I)}$$

a) $0.40 = \frac{0.14}{P(I)} \Rightarrow P(I) = \frac{0.14}{0.40} = \boxed{0.35}$

b) $P(I|\bar{S}) = \frac{P(I \cap \bar{S})}{P(\bar{S})} = \frac{P(I) \cdot [1 - P(S/I)]}{P(\bar{S})} =$
 $= \frac{0.35 \cdot (1 - 0.40)}{0.70} = \boxed{0.30}$

También: Con $P(S|I) = 0.14$
 $P(\bar{S}) = 0.70$
 $P(I) = 0.35$ } tenemos el diagrama de Venn:



$$P(I \cap \bar{S}) = P(I) - P(I \cap S) = 0.35 - 0.14 = 0.21$$

$$P(S \cap \bar{I}) = P(S) - P(I \cap S) = 0.30 - 0.14 = 0.16$$

$$P(\overline{S \cup I}) = 1 - 0.16 - 0.14 - 0.21 = 0.49$$

Resumiendo igual: $P(I|\bar{S}) = \frac{P(I \cap \bar{S})}{P(\bar{S})} = \frac{0.21}{0.70} = 0.3 \checkmark$

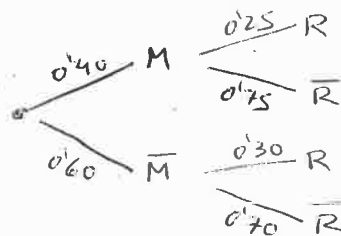
JUL 12
fase
general

M = "graduado mujer"
R = "graduado que ha repetido"

$$P(M) = 0.40$$

$$P(R|M) = 0.25$$

$$P(R|\bar{M}) = 0.30$$



a) $P(M|R) = P(M) \cdot P(R|M) = 0.40 \cdot 0.25 = \boxed{0.10}$

b) $P(R) = P(M) \cdot P(R|M) + P(\bar{M}) \cdot P(R|\bar{M}) =$
 $= 0.40 \cdot 0.25 + 0.60 \cdot 0.30 = 0.28 = \boxed{28\%}$

* JUL 12
fase
específica

M = "Trabajadoras mujeres"

A = "Trabajador con más de 10 años en la empresa"

$$P(M) = 0.40$$

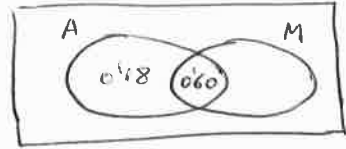
$$P(A|M) = 0.15$$

$$\Rightarrow P(A \cap M) = P(M) \cdot P(A|M) = 0.40 \cdot 0.15 = 0.060$$

$$P(\bar{M} \cap A) = 0.18$$

$$a) P(A) = P(A \cap M) + P(A \cap \bar{M}) = 0.060 + 0.18 = \boxed{0.24}$$

$$b) P(M|A) = \frac{P(M \cap A)}{P(A)} = \frac{0.060}{0.24} = 0.25 = \boxed{25\%}$$



JUN 13
fase
general

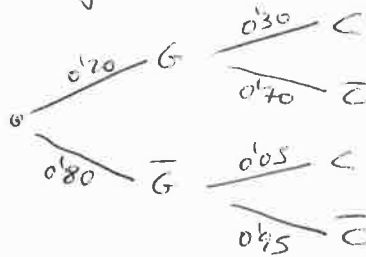
G = "cliente que repostó gasolina"

C = " " " " "compró algo en la estación de servicios"

$$P(G) = 0.20$$

$$P(C|G) = 0.30$$

$$P(C|\bar{G}) = 0.05$$



$$a) P(C) = P(G) \cdot P(C|G) + P(\bar{G}) \cdot P(C|\bar{G}) = 0.20 \cdot 0.30 + 0.80 \cdot 0.05 = 0.1 = \boxed{10\%}$$

$$b) P(G|C) = \frac{P(G \cap C)}{P(C)} = \frac{P(G) \cdot P(C|G)}{P(C)} = \frac{0.20 \cdot 0.30}{0.1} = 0.6 = \boxed{60\%}$$

JUN 13
fase
general

T = "Empleado fue a darle el Trabajo en Transporte público"

C = " " " " "Come en la empresa"

$$P(T) = 0.40$$

$$P(C) = 0.75$$

$$P(T \cap C) = 0.30$$

	C	\bar{C}	
T	30%	10%	40%
\bar{T}	45%	15%	60%
	75%	25%	100%

$$a) P(T \cap \bar{C}) = P(T) - P(T \cap C) = 0.40 - 0.30 = 0.10 = \boxed{10\%}$$

$$b) P(T|C) = \frac{P(T \cap C)}{P(C)} = \frac{0.30}{0.75} = 0.4 = \boxed{40\%}$$

JUN 13
fase
general

F = "Asistente al congreso fue habla francés"

I = " " " " " " "ingles"

$$P(F) = 0.30$$

$$P(I) = 0.60$$

$$P(F \cup I) = 0.80$$

$$a) P(F \cup I) = P(F) + P(I) - P(F \cap I) \Rightarrow P(F \cap I) = P(F) + P(I) - P(F \cup I) = \boxed{0.10}$$

$$b) P(I|F \cup I) = \frac{P(I \cap (F \cup I))}{P(F \cup I)} = \frac{P(I)}{P(F \cup I)} = \frac{0.60}{0.80} = \boxed{0.75}$$

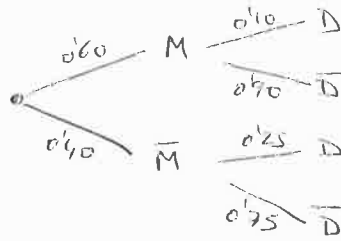
JUL 13
fase
general

M = "empleados mujeres"
D = "directivo"

$$P(M) = 0.60$$

$$P(D/M) = 0.10$$

$$P(D/\bar{M}) = 0.25$$



a) $P(D) = P(M) \cdot P(D/M) + P(\bar{M}) \cdot P(D/\bar{M}) = 0.60 \cdot 0.10 + 0.40 \cdot 0.25 = 0.16 = 16\%$

b) $P(M/D) = \frac{P(M \cap D)}{P(D)} = \frac{P(M) \cdot P(D/M)}{P(D)} = \frac{0.6 \cdot 0.1}{0.16} = 0.375 = 37.5\%$

**
JUL 13
fase
especifica

E = "niño con determinada enfermedad"
H = "niño que habla"

$$P(E \cap \bar{H}) = 0.01$$

a) $P(\bar{H}/E) = 0.20 \Rightarrow P(\bar{H}/E) = \frac{P(E \cap \bar{H})}{P(E)} \Rightarrow P(E) = \frac{P(E \cap \bar{H})}{P(\bar{H}/E)} = \frac{0.01}{0.20} = 0.05$

b) $P(E \cap H) = P(E) \cdot P(H/E) = P(E) \cdot [1 - P(\bar{H}/E)] = 0.05 \cdot (1 - 0.20) = 0.04$

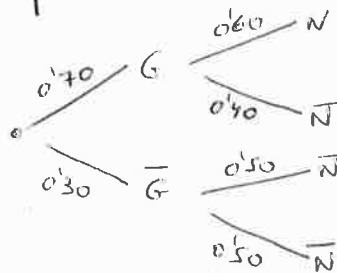
JUL 13
fase
especifica

G = "clase de grupo"
N = "niño"

$$P(\bar{G}) = 0.30$$

$$P(N/\bar{G}) = 0.50$$

$$P(N/G) = 0.60$$



a) $P(G \cap N) = P(G) \cdot P(N/G) = 0.70 \cdot 0.60 = 0.42 = 42\%$

b) $P(N) = P(G) \cdot P(N/G) + P(\bar{G}) \cdot P(N/\bar{G}) = 0.70 \cdot 0.60 + 0.30 \cdot 0.50 = 0.57 = 57\%$

*
JUN 14
fase
general

S = "móvil marca Samsung"
A = "móvil con sistema operativo Android"

$$P(S \cap A) = 0.30$$

a) $P(A/S) = 0.40 \Rightarrow P(A/S) = \frac{P(S \cap A)}{P(S)} \Rightarrow P(S) = \frac{P(S \cap A)}{P(A/S)} = \frac{0.30}{0.40} = 0.75$

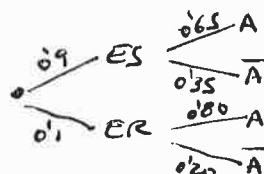
b) $P(S \cap \bar{A}) = P(S) \cdot P(\bar{A}/S) = P(S) \cdot [1 - P(A/S)] = 0.75 \cdot [1 - 0.40] = 0.45$

JUL 13
fase
general

ES = "alumno Español" A = "aprobar"
ER = " " ERasmus

$$P(ES) = \frac{900}{1000} = 0.9 \quad P(A/ES) = 0.65$$

$$P(ER) = \frac{100}{1000} = 0.1 \quad P(A/ER) = 0.80$$



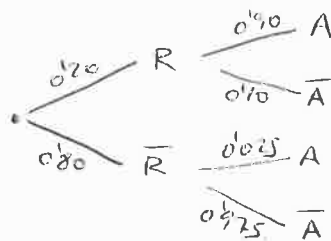
a) $P(ER \cap A) = 0.1 \cdot 0.80 = 0.08$

b) $P(A) = 0.9 \cdot 0.65 + 0.1 \cdot 0.80 = 0.665$

JUN 14
fase
específica

R = "cliente fue roba"
A = "que suene la alarma"

$P(A/R) = 0.90$
 $P(A/\bar{R}) = 0.025$
 $P(R) = 0.20$



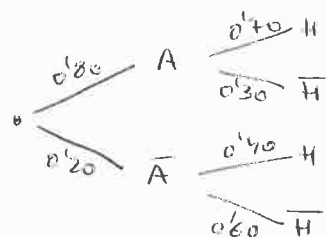
a) $P(A) = P(R) \cdot P(A/R) + P(\bar{R}) \cdot P(A/\bar{R}) = 0.20 \cdot 0.90 + 0.80 \cdot 0.025 = 0.2$

b) $P(R/A) = \frac{P(R \cap A)}{P(A)} = \frac{P(R) \cdot P(A/R)}{P(A)} = \frac{0.20 \cdot 0.90}{0.2} = 0.90$

JUL 14
fase
general

A = "Tomar café con Azúcar"
H = "Hombre"

$P(A) = 0.80$
 $P(H/A) = 0.70$
 $P(H/\bar{A}) = 0.40$



a) $P(H \cap A) = P(A) \cdot P(H/A) = 0.80 \cdot 0.70 = 0.56$

b) $P(H) = P(A) \cdot P(H/A) + P(\bar{A}) \cdot P(H/\bar{A}) = 0.80 \cdot 0.70 + 0.20 \cdot 0.40 = 0.64$

JUL 14
fase
específica

R = "individuo Rubio"
A = " " " " " con ojos Azules"

$P(R) = 0.40$
 $P(A) = 0.25$
 $P(A \cap R) = 0.15$

	A	\bar{A}	
R	0.15	0.25	0.40
\bar{R}	0.10	0.50	0.60
	0.25	0.75	1

a) $P(A/R) = \frac{P(A \cap R)}{P(R)} = \frac{0.15}{0.40} = 0.375$

b) $P(\bar{R}/A) = \frac{P(\bar{R} \cap A)}{P(A)} = \frac{0.10}{0.25} = 0.40$

JUL 14
fase
específica

M = "mujer"
H = "persona con hijos"

$P(M) = \frac{140}{200} = 0.7$

$P(H) = \frac{100}{200} = 0.5$

$P(M \cap H) = \frac{60}{200} = 0.3$

	H	\bar{H}	
M	0.3	0.4	0.7
\bar{M}	0.2	0.3	0.5
	0.5	0.5	1

	H	\bar{H}	
M	60	80	140
\bar{M}	40	20	60
	100	100	200

a) $P(M/H) = \frac{P(M \cap H)}{P(H)} = \frac{0.3}{0.5} = 0.6$

b) $P(\bar{M} \cap \bar{H}) = 0.1$ ← obtenido de la Tabla de Contingencia.

También: $P(\bar{M} \cap \bar{H}) = P(\bar{M} \cap \bar{H}) = 1 - P(M \cup H) = 1 - (P(M) + P(H) - P(M \cap H)) = 1 - 0.7 - 0.5 + 0.3 = 0.1$ ✓

JUL 15
fase
General

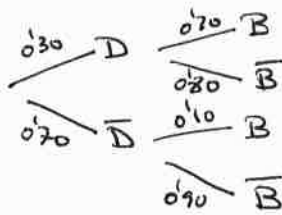
D = "Café Descafeinado"

B = "Café de marca Blanca"

$$P(D) = 0.30$$

$$P(B|D) = 0.20$$

$$P(B|\bar{D}) = 0.10$$



a) $P(B \cap D) = P(D) \cdot P(B|D) = 0.30 \cdot 0.20 = 0.06 = \boxed{6\%}$

b) $P(B) = P(D) \cdot P(B|D) + P(\bar{D}) \cdot P(B|\bar{D}) =$
 $= 0.30 \cdot 0.20 + 0.70 \cdot 0.10 =$
 $= 0.06 + 0.07 = 0.13 = \boxed{13\%}$

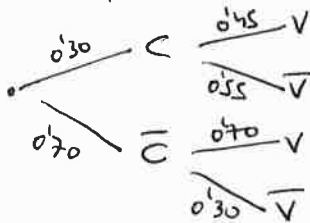
JUL 15
fase
Específica

C = "Tener asegurado el coche en la compañía de seguros"
 V = "Tener asegurado el coche en la Virindade"

$$P(C) = 0.30$$

$$P(V|C) = 0.45$$

$$P(V|\bar{C}) = 0.70$$



a) $P(C \cap V) = P(C) \cdot P(V|C) = 0.30 \cdot 0.45 = \boxed{0.135}$

b) $P(V) = P(C) \cdot P(V|C) + P(\bar{C}) \cdot P(V|\bar{C}) =$
 $= 0.30 \cdot 0.45 + 0.70 \cdot 0.70 =$
 $= 0.135 + 0.49 = \boxed{0.625}$

JUL 15
fase
Específica

C = "Tener contratado un préstamo"

D = "Tener un Descuento"

$$P(C) = 0.60$$

$$P(D|C) = 0.20$$

$$P(\bar{D}|D) = 0.08$$

$$P(D|C) = \frac{P(D \cap C)}{P(C)} ; 0.20 = \frac{P(D \cap C)}{0.60} \Rightarrow P(D \cap C) = 0.12$$

a) $P(D) = P(D \cap C) + P(D \cap \bar{C}) =$
 $= 0.12 + 0.08 = \boxed{0.20} = \boxed{20\%}$

	D	\bar{D}	
C	0.12	0.48	0.60
\bar{C}	0.08	0.32	0.40
	0.20	0.80	1

b) $P(\bar{D}|D) = \frac{P(\bar{D} \cap D)}{P(D)} = \frac{0.08}{0.20} = \frac{8}{20} = \frac{2}{5} = 0.4 = \boxed{40\%}$

Junio 16
fase
General

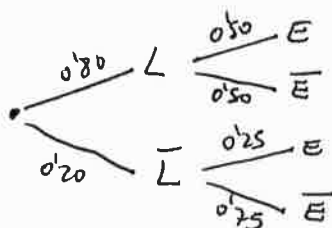
L = "Votaje por motivos laborales"

E = "Ser Especial"

$$P(L) = 0.80$$

$$P(E|L) = 0.50$$

$$P(E|\bar{L}) = 0.25$$



a) $P(E) = P(L) \cdot P(E|L) + P(\bar{L}) \cdot P(E|\bar{L}) =$
 $= 0.80 \cdot 0.50 + 0.20 \cdot 0.25 = 0.45 = \boxed{45\%}$

b) $P(\bar{L}|E) = \frac{P(\bar{L} \cap E)}{P(E)} = \frac{0.20 \cdot 0.25}{0.45} = 0.11 = \boxed{11\%}$

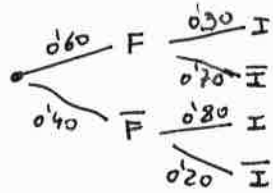
Junio 16
fase
General

F = 'producto fue resultado ser un fracaso'; \bar{F} = 'producto exitoso'
I = 'producto con Informe previo favorable'

$P(\bar{F}) = 0.40 \rightarrow P(F) = 0.60$

$P(I/\bar{F}) = 0.80$

$P(I/F) = 0.30$



a) $P(I \cap \bar{F}) = 0.40 \cdot 0.80 = 0.32$

b) $P(\bar{F}/I) = \frac{P(\bar{F} \cap I)}{P(I)} = \frac{0.32}{0.60 \cdot 0.30 + 0.40 \cdot 0.80} = 0.64$

Junio 16
fase
Especific

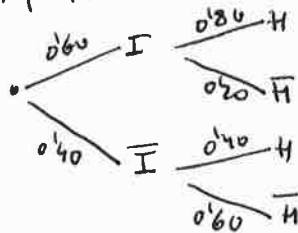
I = 'ventas por Internet'; \bar{I} = 'ventas por tienda'

H = 'computador hombre'

$P(I) = 0.60 \rightarrow P(\bar{I}) = 0.40$

$P(H/I) = 0.80$

$P(H/\bar{I}) = 0.40$



a) $P(H) = 0.60 \cdot 0.80 + 0.40 \cdot 0.40 = 0.64$

b) $P(I/H) = \frac{P(I \cap H)}{P(H)} = \frac{0.60 \cdot 0.80}{0.64} = 0.75$

Julio 16
fase
General

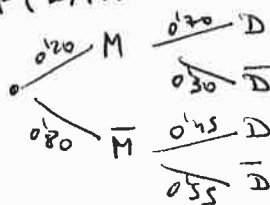
M = 'individuo de clase Media'; \bar{M} = 'individuo de clase baja'

D = 'individuo que asiste periódicamente al dentista'

$P(M) = 0.20 \rightarrow P(\bar{M}) = 0.80$

$P(D/M) = 0.70$

$P(D/\bar{M}) = 0.45$



a) $P(M \cap \bar{D}) = 0.20 \cdot 0.30 = 0.06$

b) $P(M/D) = \frac{P(M \cap D)}{P(D)} = \frac{0.20 \cdot 0.70}{0.20 \cdot 0.70 + 0.80 \cdot 0.45} = \frac{0.14}{0.5} = 0.28$

Julio 16
fase
General

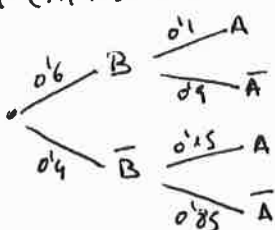
B = 'regalar Bonos de descuento'; \bar{B} = 'hacer campaña publicitaria en los autobuses'

A = 'Aumentar las ventas'

$P(\bar{B}) = 0.4 \rightarrow P(B) = 0.6$

$P(A/B) = 0.1$

$P(A/\bar{B}) = 0.15$



a) $P(\bar{B} \cap A) = 0.4 \cdot 0.15 = 0.06$

b) $P(A) = 0.6 \cdot 0.1 + 0.4 \cdot 0.15 = 0.066$

Juho 16
fase
Especifica

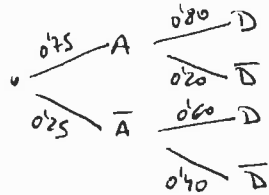
A = 'pernoche en Apartamento' ; \bar{A} = 'pernoche en hotel'

D = 'habitación con DVD'

$$P(A) = 0.75 \rightarrow P(\bar{A}) = 0.25$$

$$P(D|A) = 0.80$$

$$P(D|\bar{A}) = 0.60$$



$$a) P(A \cap D) = 0.75 \cdot 0.80 = 0.6 = \boxed{60\%}$$

$$b) P(D) = 0.75 \cdot 0.80 + 0.25 \cdot 0.60 = 0.75 = \boxed{75\%}$$

*
Juho 16
fase
Especifica

B = 'Botella de 33 cl' \rightarrow \bar{B} = 'botella de 50 cl'

D = 'botella con llenado Defectuoso'

$$P(B) = 0.20 \rightarrow P(\bar{B}) = 0.80$$

$$P(D|B) = 0.10$$

$$P(B|D) = \frac{1}{4} = 0.25$$

$$a) P(D|B) = \frac{P(D \cap B)}{P(B)} \Rightarrow P(D \cap B) = P(B) \cdot P(D|B) = 0.20 \cdot 0.10 = \boxed{0.02}$$

$$b) P(B|D) = \frac{P(B \cap D)}{P(D)} \Rightarrow P(D) = \frac{P(B \cap D)}{P(B|D)} = \frac{0.02}{0.25} = \boxed{0.08}$$

Modelo 17

Ver junio 16 fase General

Modelo 17

Ver junio 11 fase General.