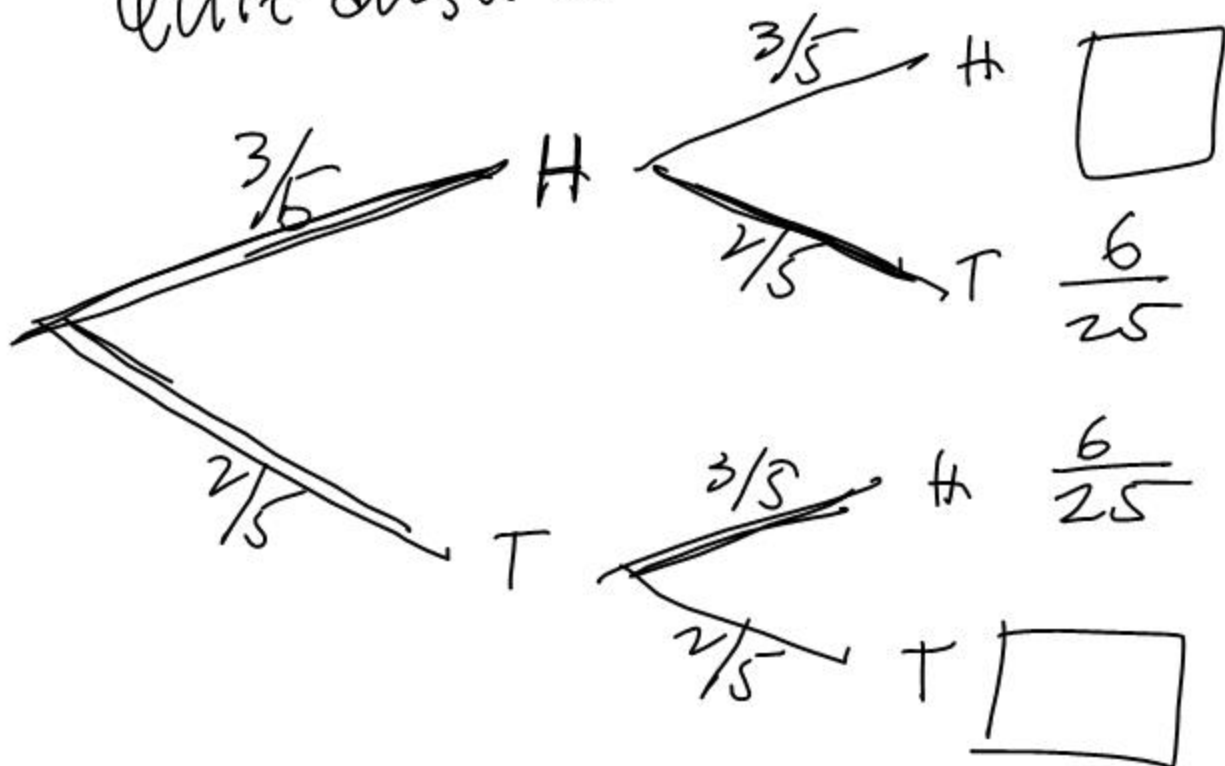


Quiz answer



$P(1H \text{ and } 1T \text{ in any order})$

$$\frac{6}{25} + \frac{6}{25} = \frac{12}{25}$$

$\boxed{30} \neq 1$

$$(a) P(\text{div. by } 5) = ?(5, 10) = \frac{34+68}{500}$$

$$(b) (\text{even}) = \frac{6+21+65+63+68+42}{500} = \frac{102}{500}$$

$$= \frac{265}{500}$$

$P(\text{div. by } 5 \text{ or even})$

$$= P(2, 4, 5, 6, 8, 10, 12)$$

$$= \frac{6 + 21 + 34 + 65 + 63 + 68 + 42}{500}$$

$$= \frac{299}{500}$$

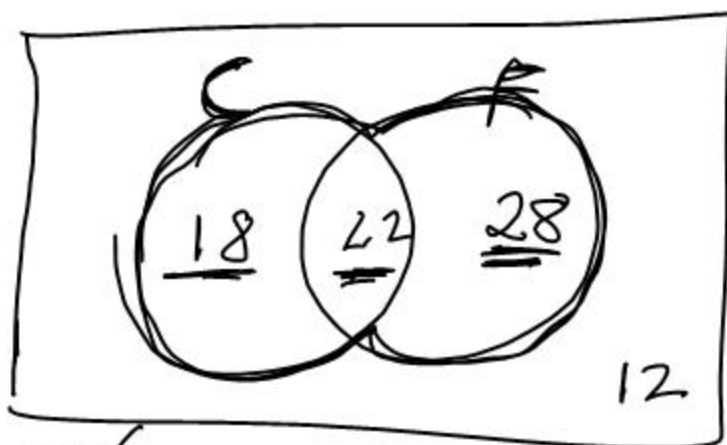
3

$C = \text{having a camera}$

$F = \text{being female}$

$C' = \text{not having a camera}$

$F' = \text{being male}$



$$\begin{array}{r} 18 \\ 22 \\ 28 \\ \hline 68 \end{array}$$

$$P(C \cup F) = P(C \text{ or } F) = \frac{68}{80} = \frac{17}{20}$$

$$P(A \cup B) = P(A) + P(B) - P(A \cap B)$$

$$\begin{aligned}
 P(C \cup F) &= P(C) + P(F) - P(C \cap F) \\
 &= \frac{1}{2} + \frac{5}{8} - \frac{\cancel{22}}{\cancel{80}} \frac{11}{40} \\
 &= \frac{20}{40} + \frac{25}{40} - \frac{11}{40} \\
 &= \frac{34}{40}
 \end{aligned}$$

$$\frac{\cancel{24}}{13} \cdot \frac{9}{\cancel{26}} = \frac{18}{169}$$

$\boxed{\neq 4c}$
 \textcircled{M}
 ~~\textcircled{A}~~
 ~~\textcircled{T}~~
 ~~\textcircled{H}~~
 ~~\textcircled{E}~~
 ~~\textcircled{N}~~
 ~~\textcircled{A}~~
 ~~\textcircled{S}~~
 ~~\textcircled{I}~~
 ~~\textcircled{C}~~
 ~~\textcircled{S}~~
 $\textcircled{\frac{4}{26}}$

$\textcircled{4a}$
M
A
T
H
E
~~N~~
~~A~~
~~S~~
I
C
S
 $\frac{8}{26}$

$\boxed{4d}$
MATHE~~N~~~~A~~~~S~~ICS 8 letters

~~R~~
~~G~~
~~O~~
~~N~~
~~A~~
~~S~~
~~I~~
~~C~~
~~S~~
Y
 $\frac{5 \text{ letters}}{13 \text{ letters}}$

$$\frac{13}{26} = \frac{1}{2}$$

$$P(F) = 0.4$$

$$P(N) = 0.3$$

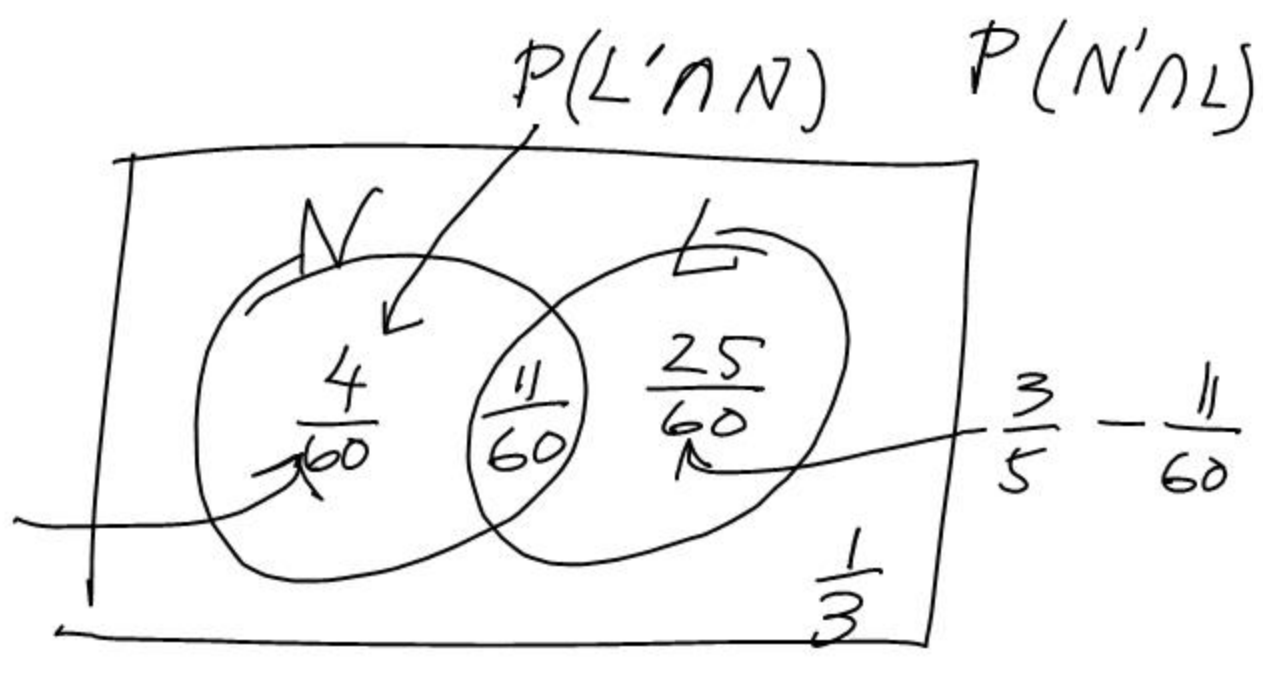
$$P(F \cap N) = 0.2$$

$$\begin{aligned} P(F \cup N) &= P(F) + P(N) - P(F \cap N) \\ &= 0.4 + 0.3 - 0.2 \\ &= 0.5 \end{aligned}$$

$$\begin{aligned} \boxed{\#7} \quad P(X \cup Y) &= P(X) + P(Y) - P(X \cap Y) \\ &= \frac{1}{4} + \frac{1}{8} - \frac{1}{8} \\ &= \frac{1}{4} \end{aligned}$$

$$P(X \cup Y)' = 1 - \frac{1}{4} = \frac{3}{4}$$

#6



$$P(N) + P(L) = \frac{1}{4} + \frac{3}{5}$$

$$= \frac{5}{20} + \frac{12}{20} = \frac{17}{20}$$

$$\frac{17}{20} - \frac{2}{3} = \frac{51}{60} - \frac{40}{60}$$

$$\uparrow \\ P(N \cap L) = \frac{11}{60}$$

HW Quiz 9/4

For events A and B :

$$P(A) = \frac{8}{15}$$

$$P(B) = \frac{9}{20}$$

$$P(A \cap B) = \frac{1}{5}$$

Find ① $P(A \cup B)$

② $P(A' \cap B)$