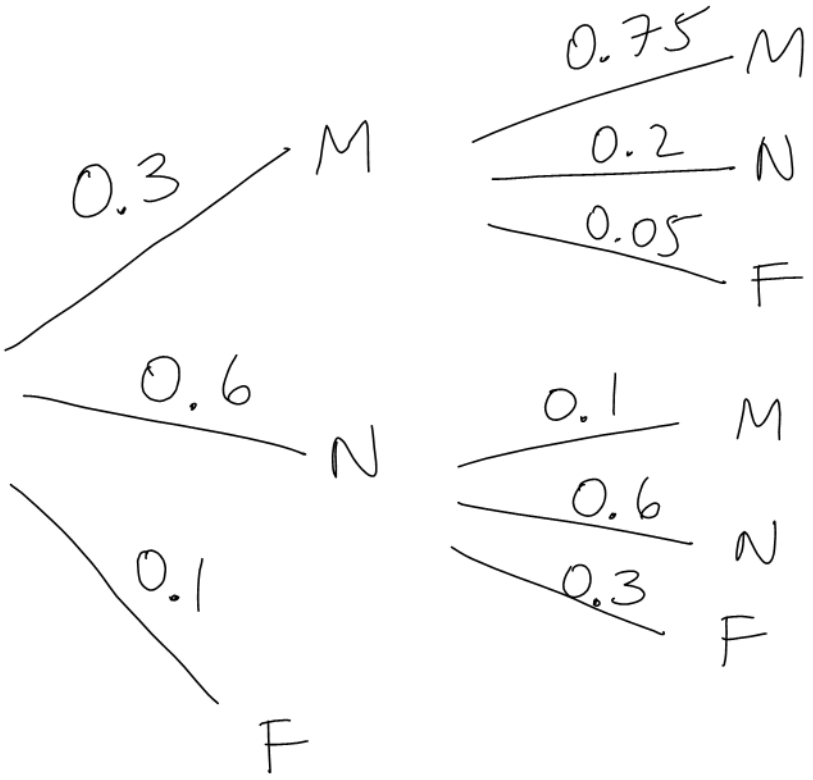
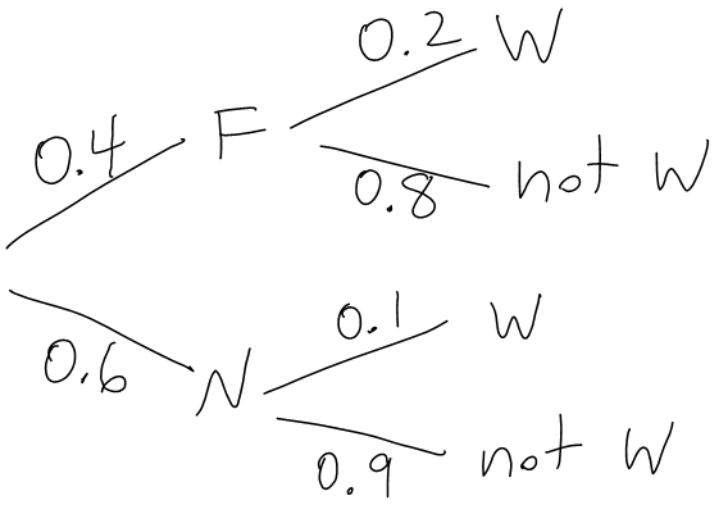
(3) Let M stand for management.
" N " nonmanagerial.
" F " fired.



(5) Pr(M after step II)
$= 0.3(0.75) + 0.6(0.1)$
$= 0.285$

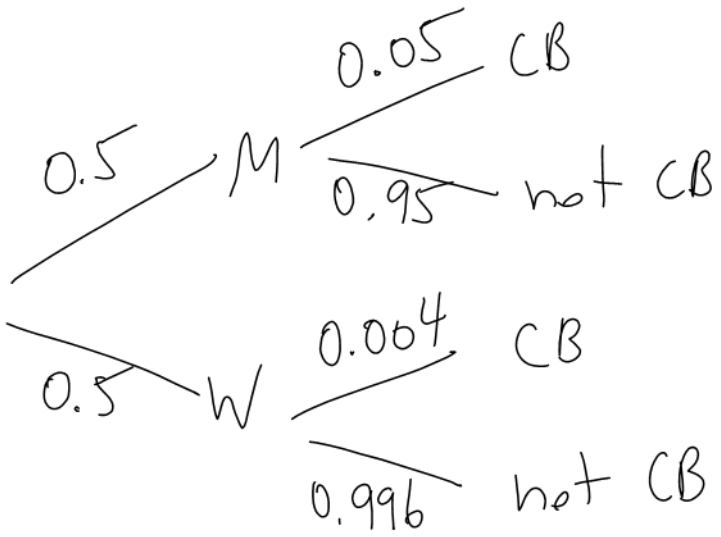
(7) Pr(F after Step II)
$= 0.3(0.05) + 0.6(0.3) + 0.1$
$= 0.295$

(13) Let F stand for fiction.
" N " nonfiction.
" W " worn.



$$\begin{aligned} &Pr(W) \\ &= 0.4(0.2) + 0.6(0.1) \\ &= 0.14 \end{aligned}$$

(15) Let M stand for man.
" W " woman.
" CB " Color-blind.



$$Pr(\text{M given CB})$$

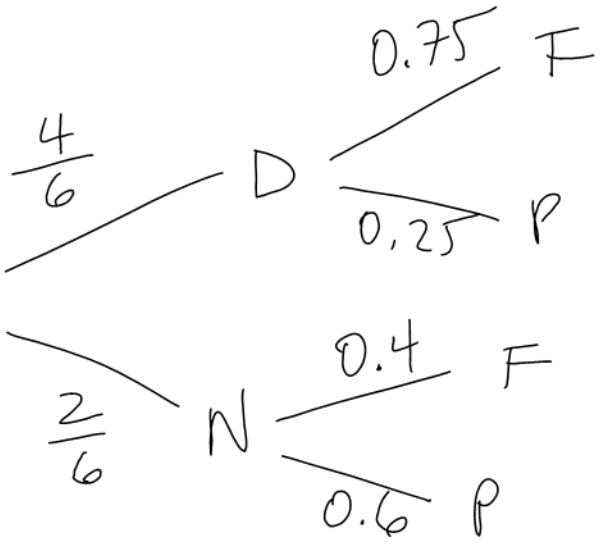
$$= Pr(M \mid CB)$$

$$= \frac{Pr(M \cap CB)}{Pr(CB)}$$

$$= \frac{0.5(0.05)}{[0.5(0.05) + 0.5(0.004)]}$$

$$\approx 0.93$$

(29) Let D stand for day.
" N " night.
" F " full-time faculty.
" P " part-time faculty.



$$Pr(N \text{ given } P)$$

$$= Pr(N \mid P)$$

$$= \frac{Pr(N \wedge P)}{Pr(P)}$$

$$= \frac{\frac{2}{6}(0.6)}{\left[\frac{2}{6}(0.6) + \frac{4}{6}(0.25)\right]}$$

$$\approx 0.55$$