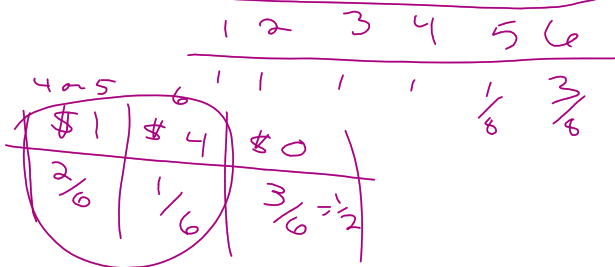
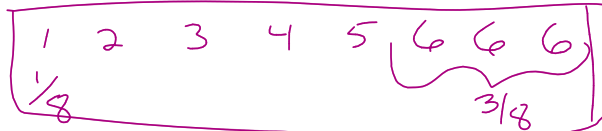
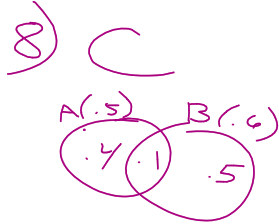


Test 6C

- 1) D
- 2) B
- 3) B
- 4) C $\frac{1}{8} = \frac{1}{2}$
- 5) C
- 6) D
- 7) D



$\frac{3}{6} = \frac{1}{2}$ (with a note "fix 1/2")
 $\frac{1}{2} \cdot \frac{1}{2} = \frac{1}{4}$



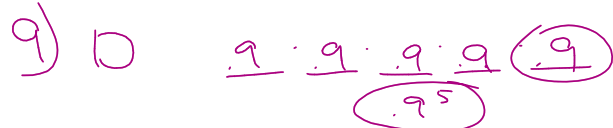
- ~~.5(.6) ≠ .1~~
- ~~P(A ∩ B) ≠ 0~~
- ② .4 + .1 + .5 = 1
- ~~ex. A (.4) B (.6)~~

mut. exl
Disjoint
 A (.3) B (.6)
 $P(A \cap B) = \emptyset$
 $P(A \cup B) = .3 + .6 = .9$

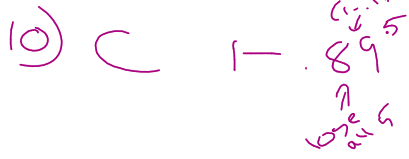
Not disjoint

independent
 A (.3) B (.6)
 $P(A \cap B) = P(A)P(B)$
 $= .3(.6)$
 $= .18$
 $P(A \cup B) = .3 + .6 - .18$
 $= .72$

Not ind.
 A (.3) B (.6)
 $P(A \cap B) = .2$
 $P(A \cup B) = .3 + .6 - .2$
 $= .7$



Truth → (+) .10
~~lying (-) .95~~



$1 - bcd + (5, .11, 1)$

1) b) $1 - .85 = .15 = P(M^c)$

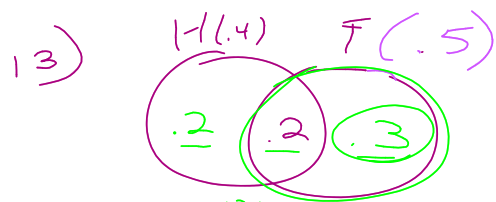
c) $.85^2 = .7225$

d) $.85 \cdot .15 = .1275$

e) $2(.1275) = .255$
 $.85(.15) + .15(.85)$

12) a) $.7^{10} = .028$ $P(R) = .3$
b) independent $P(R^c) = .7$

c) $1 - .028 = .972$

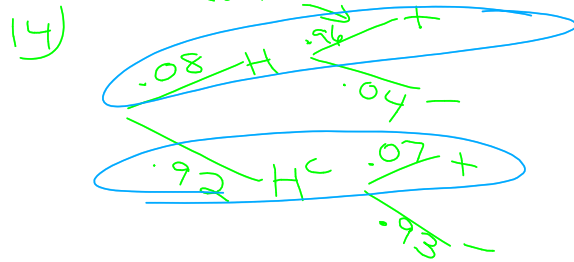


H & F independent?

Yes $\Rightarrow .4(.5) = .2$
 $H \cdot F = \text{and}$

b) $1 - .7 = .3$

c) $.3 = P(F \cap H^c)$
 conditional



$.08(.96) = .0768$
 $P(H \cap +)$

$.92(.07) = .0644$
 $P(H^c \cap +)$


 $P(+)$


$P(H|+) = \frac{.0768}{.1412} = .54$

P.E.A

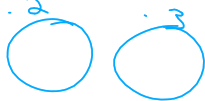
23) True?

a) If mut. excl., they ~~must~~ be ind.


b) If ind., they ~~must be~~ mut. excl.


c) NOT mut. excl., they ~~must~~ be ind.


d) NOT ind. / must mut. excl.

e) mut. excl. → they CAN'T be ind.


36) 3 balls 1, 2, 3

$$\bar{x} = \frac{x_1 + x_2}{2}$$

\bar{x}	1	1.5	2	2.5	3
$P(x)$	$\frac{1}{9}$	$\frac{2}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$

	1	2	3
1		1.5	
2	1.5		
3			