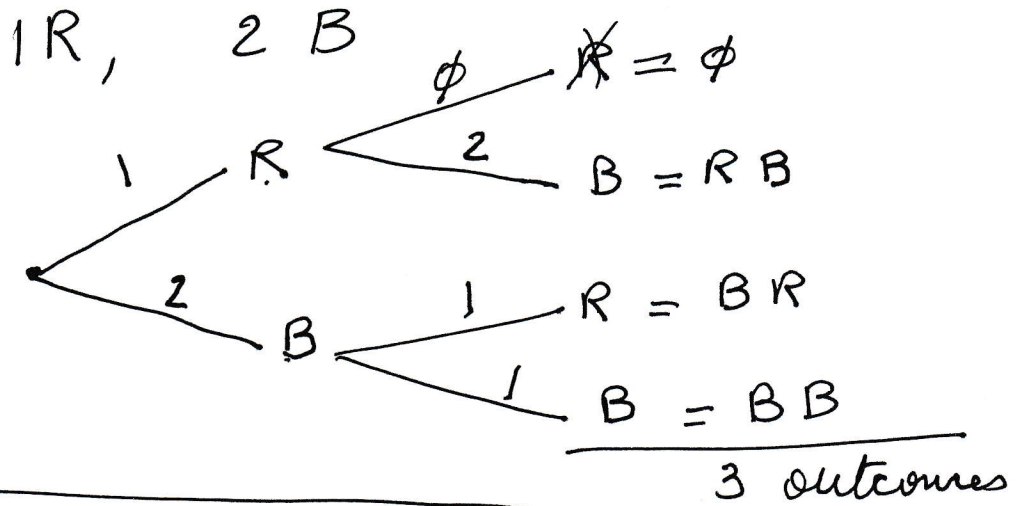


Sec 3.1

#9)



#11)

CAT

$$P(3,3) = 3 \cdot 2 \cdot 1 = 6$$

3	2	1
---	---	---

 = 6

#19)

~~V, H, P, Z~~

$$P(4,4) = 4 \cdot 3 \cdot 2 \cdot 1 = 24$$

4	3	2	1
---	---	---	---

 = 24

Sec 3.1

#21

$20 \rightarrow 3$

$P(20,3) = 20 \cdot 19 \cdot 18$

20	19	18
----	----	----

#25

2M  
2W

$P(4,4) = 4 \cdot 3 \cdot 2 \cdot 1 = 24$

4	3
2	1

 = 24

#27 \*

1	10	10	10	10	10	10	10	5
---	----	----	----	----	----	----	----	---

↑  
must be  
3

↑  
must be  
odd: 1, 3, 5, 7, 9

$= 1 \cdot 10^7 \cdot 5$

#29 \*

1, 2, 3, 4, 5, 6

5	4	3
---	---	---

 = 60

↑  
even 2, 4, 6

Sec 3.1

# 31)\*

10 TF  $\rightarrow$  each question  
with 2 choices

10 (4W, 1C)  $\rightarrow$  each question  
with 5 choices

A)  $2^{10} + 5^{10}$

B)  $2^{10} \cdot 5^{10}$

C)  $10^2 + 10^5$

D)  $10^2 \cdot 10^5$

AND =  $\cdot$

OR =  $+$

Answer = B

Note:

First Part  $2 \cdot 2 \cdot 2 \cdot 2 \dots = 2^{10}$

Second Part  $5 \cdot 5 \cdot 5 \cdot 5 \dots = 5^{10}$

First and Second =  $2^{10} \cdot 5^{10}$