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(72) 14

(74)

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(54)

OTD, TSTD, STD, TXAA

1

- 1
- 2 OTD
- 3 TSTD
- 4 STD
- 5 TXAA

[]

101, 103 :

105 :

107 :

109 :

111 :

113 :

115 :

117, 119 : 가

3 (diversity) (cellular) cdma2000 (packet data) 가
 가 가 (fading) 가
 가 가 (diversity technique) (temporal) (transmit) (frequency),
 (receive) 가 (spatial) (forward link)가 (reverse link)
 cdma2000 2 CDMA (maximal ratio combining)
 cdma2000
 OTD(orthogonal transmit diversity), TSTD(time switched transmit diversity), STD(selection diversity), TXAA(transmit antenna array)
 (implementation complexity) 가 (trade-off)
 가 가

OTD, TSTD, STD, TXAA

가 가

(path estimator)

가

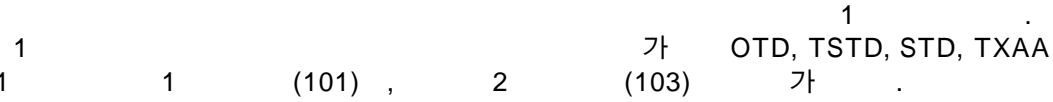
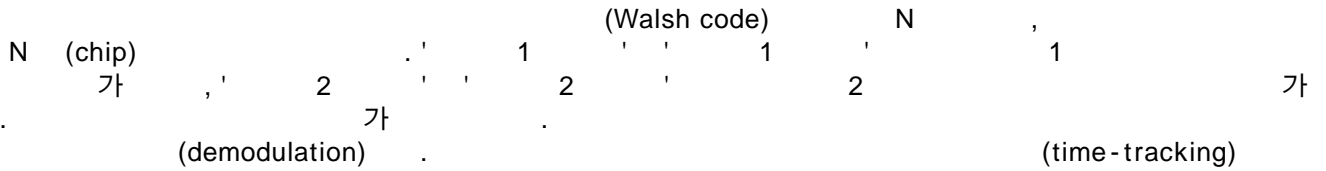
2
 , 가 , 가 2 , 2 가
 2 가 ,
 가 , 2 가 , 2
 , 가 ,
 가 , 가 2 , 2
 가 .

OTD, TSTD, STD, TXAA

1 , 1
 2 (101, 103), (105), (107), (109)
 1 가
 (101, 103) 1 , (111) ,
 (113) ,
 (115) (101) P1
 , P2 , T1 , (103) T2 .
 (delay element : 115)
 (103) (115)가
 T1 T2 가 OTD
 T1 T2 , (101, 103)가 TSTD, STD, TXAA
 (T1 T2가)
 T1 T2가 ,
 (113)

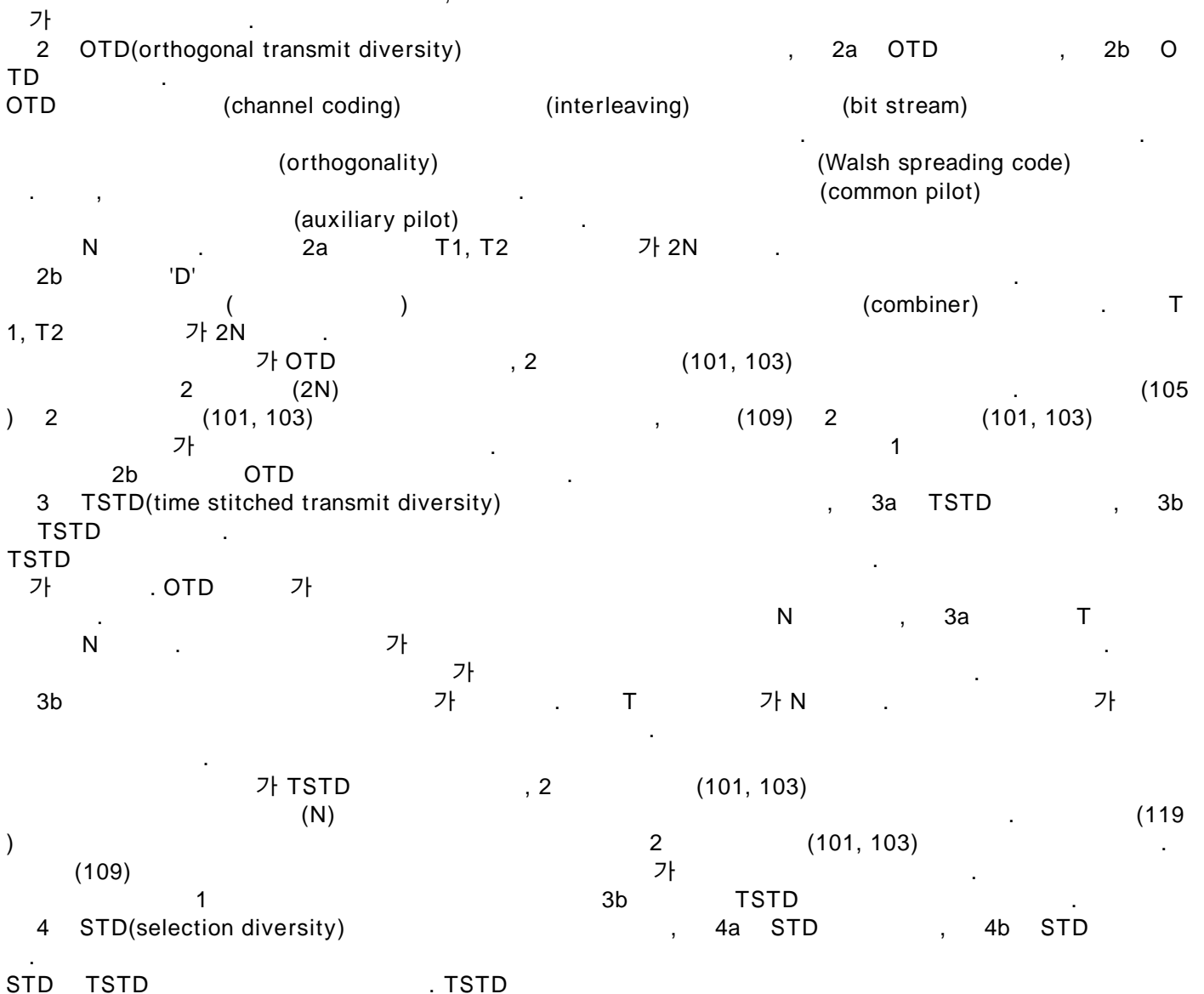
1 (antenna weighting signal generate
 r : 107) (101) (107) 가 (path estim
 ator : 117, 119)가 가 (117) (101) (111)
 가 , 가 (107) (107) 가 (117, 119)
 (103) 가 (119) 가 ,
 가 STD 2 , TXAA
 STD TXAA 1 , TXAA STD
 (m
 multi-bit)

(path controller : 105) (105) 2
 (101, 103) , OTD, TXAA
 (101, 103) TSTD
 , STD (antenna selection message)
 (105) ()
 (109)가 (109) OTD 가
 (101) , (103) 가 TXAA
 . TSTD STD (101, 103)



[1]

	월쉬 T1, T2	경로제어기	덧셈기
OTD	T1 ≠ T2 길이 = 2N	모든 확산부 활성화	교대로 출력
TSTD	T1 = T2 길이 = N	선택된 확산부만 활성화	선택된 확산부의 데이터신호 출력
STD	T1 = T2 길이 = N	선택된 확산부만 활성화	선택된 확산부의 데이터신호 출력
TXAA	T1 = T2 길이 = N	모든 확산부 활성화	더하여 출력



(signal to noise ratio : SNR) SNR
 가 가 (feedback) SNR (on S
 e-bit antenna selection message) 가 1
 TD 가
 4b T 가 N
 (antennal selection message) 가
 (round-trip delay), /
 가 STD , 2 (101, 103)
 (N) (101, 103) (109) (119)
) 2 가 (101, 103) 1
 4b STD
 5 TXAA(transmit antenna array) , 5a TXAA , 5b TXAA
 TXAA
 (weighting)
 N 5a T N H
 1(t), H2(t) (phase) (gain) SNR 가
 5b , 1
 2 가 TXAA , 2 (101, 103)
) 2 (101, 103) (109) 2 (101, 103) (105)
 가 TXAA 1
 5b TXAA
 가

OTD, TSTD, STD, TXAA

(57)

1.

2.

3.

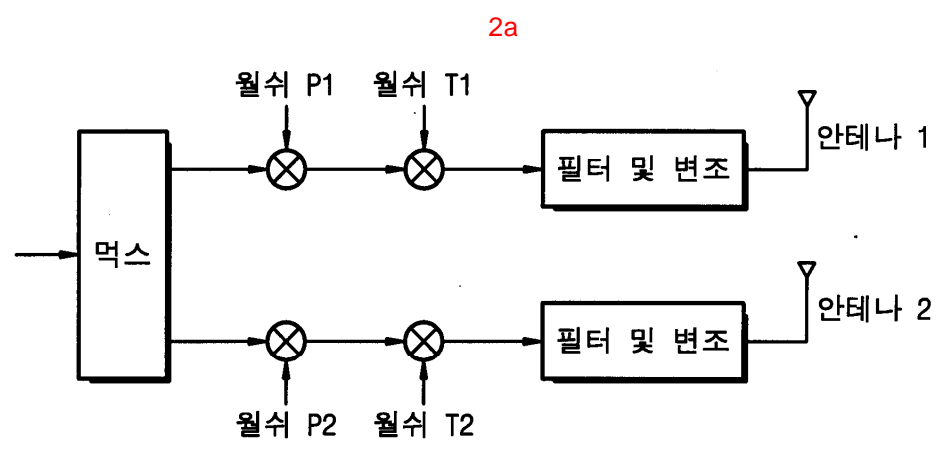
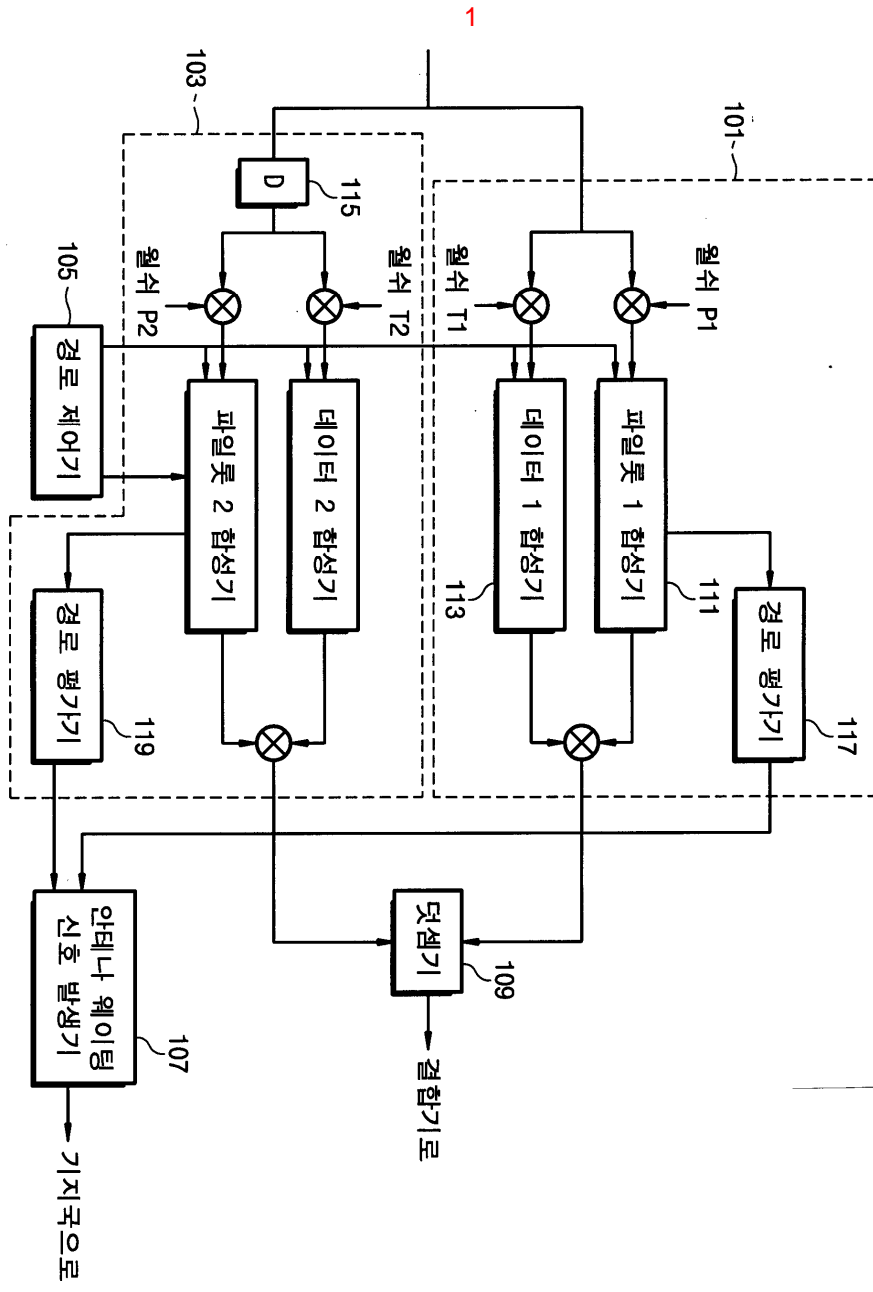
4. 2 , 가 가 (path e stimator) , 가

5. 1 , 2 .

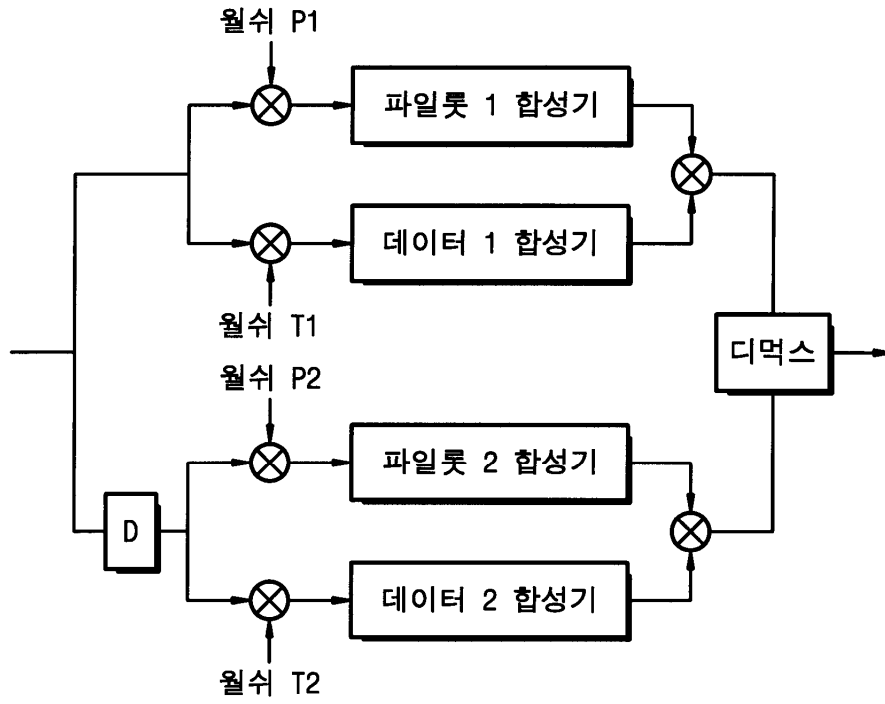
6. 5 , 가 2 , 2 가 2 가

7. 5 , 가 2 가 2

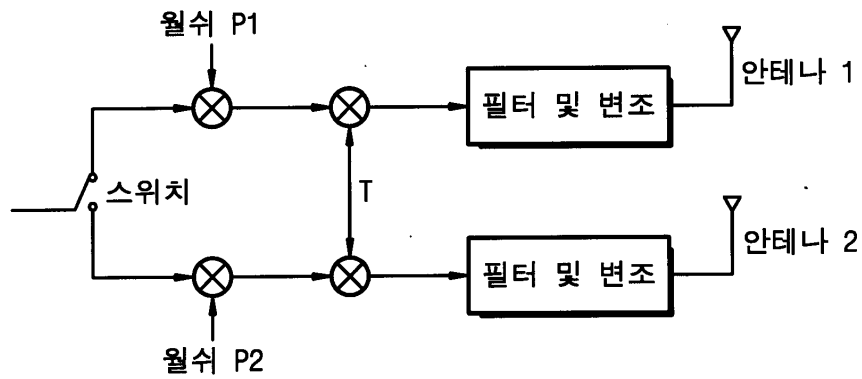
8. 5 , 가 가 2 , 2 가 가



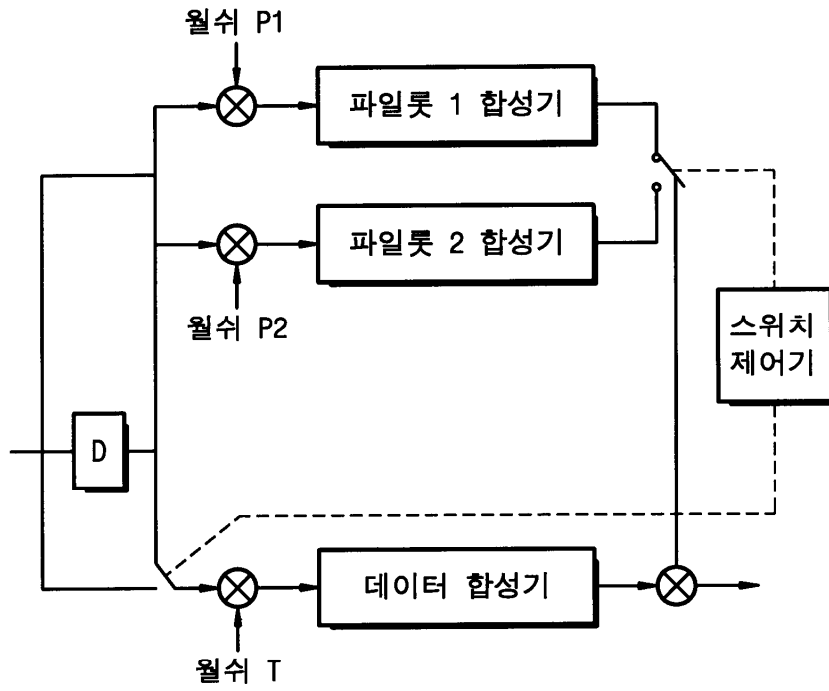
2b



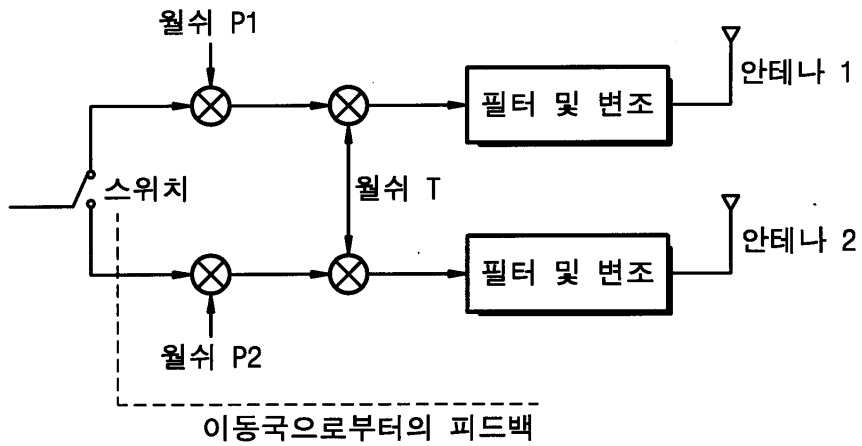
3a



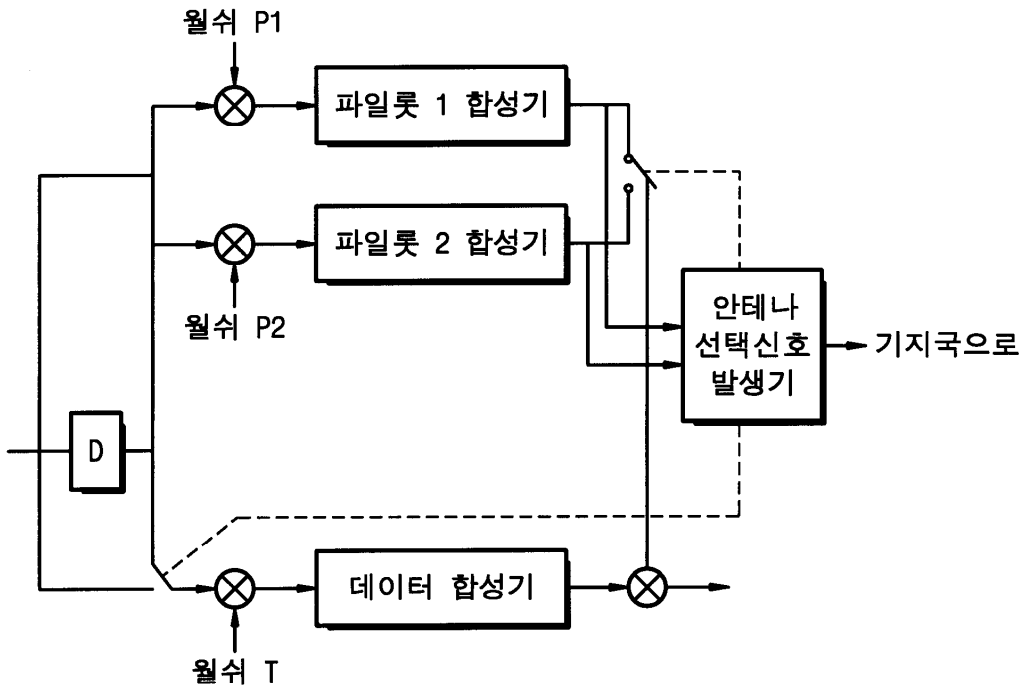
3b



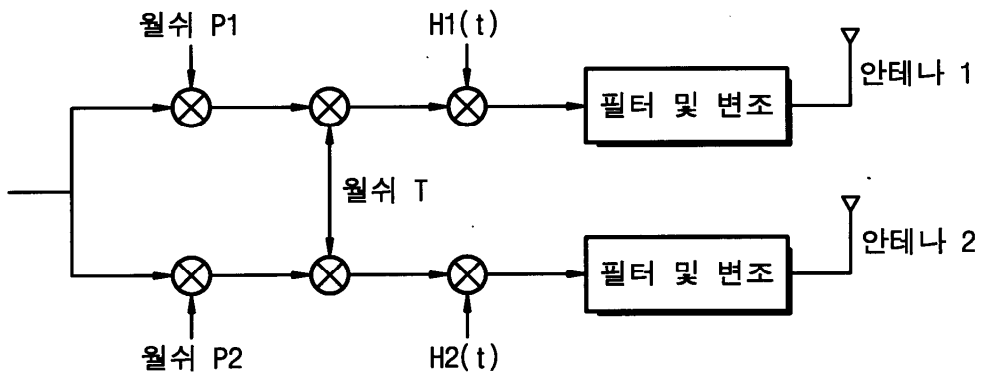
4a



4b



5a



5b

