a = b
abbb = bbaa
abbb = baba
abbb = baaa
abba = bbab
abba = babb
abab = bbba
abab = baaa
abaa = bbbb
abaa = babb
abaa = baab
aabb = bbba
aabb = baaa
aaba = bbbb
aaba = bbab
aaba = baab
aaab = bbba
aaab = bbaa
aaab = baba
aaaa = bbab
aaaa = babb

aaa = bab
abab = baba
aaab = babb
aaaa = baba
aaaa = abab

ab = bb
abbb = baab
abab = bbbb
abab = babb
abab = baab
abab = abbb
aabb = bbab
aaab = bbbb
aaab = bbab
aaab = babb
aaab = baab

ab = ba
abbb = bbba
abba = baab
abab = bbaa
abab = baba
abab = abba
aabb = baba
aaab = baaa

abb = baa
abbb = baab
abba = baaa
aabb = abaa

aa = ab
abba = abbb
abab = abba
abaa = abbb
abaa = abab
aabb = abaa
aaba = abbb
aaba = abab
aaab = abba
aaaa = abbb
aaaa = abab

aa = bb
abba = bbbb
abba = baab
abaa = bbab
abaa = abbb
aaba = babb
aaaa = bbbb
aaaa = baab

aba = bbb
abab = bbbb
abab = baba
abaa = bbba
aaba = abbb

aab = bba
aabb = bbab
aaba = bbaa
aaab = abba

aba = bab
abab = babb
abaa = bbab
abaa = baba
aaba = babb
aaba = abab

aa = ba
abba = bbba
abba = baba
abba = baaa
abaa = bbba
abaa = baba
abaa = abba
aaba = bbba
aaba = bbaa
aaaa = bbba
aaaa = baba

aaa = bbb
abbb = bbba
aaab = bbbb
aaab = baaa
aaaa = bbba
aaaa = abbb

aaa = abb
aabb = abba
aaab = abbb
aaaa = abba
aaaa = aabb

a = ab
abab = abba
aba = abab
aabb = aba
aab = abba
a = abbb

a = abb
ab = abbb
aabb = abba
aa = abba
aa = aabb

aa = aab
aab = aabb
aaab = aaba
aaa = aaba
aaa = aaab
aa = aabb

aa = abab
aaab = abaa

aab = aba
aabb = abab
aaba = abaa
aaab = abaa
aaab = aaba

ab = abb
abb = abbb
aba = abba
ab = abbb
aab = aabb

aa = aba
aaba = abaa
aab = abab
aaa = abaa
aaa = aaba

ab = babb
aabb = baab

aab = bbb
aabb = bbbb
aabb = baab
aaba = bbba
aaab = abbb

aab = abb
aabb = abbb
aaba = abba
aaab = abbb
aaab = aabb

aab = bab
aabb = babb
aaba = baba
aaab = abab

abb = bbb
abbb = bbbb
abbb = babb
abba = bbba
aabb = bbbb
aabb = babb
aabb = abbb

aba = bba
abab = bbab
abaa = bbaa
aaba = abba

abb = bab
abbb = bbab
abbb = babb
abba = baba
aabb = abab

ab = baba
abba = baab

abb = bba
abbb = bbab
abba = bbaa
aabb = bbaa
aabb = abba

abb = b
abbb = bb
abbb = babb
abba = ba
aabb = ab

a = bab
abab = baba

aa = baba
aaba = baaa

aab = baa
aabb = bbaa
aabb = baab
aaba = baaa
aaab = abaa

aaa = bbbb
aaab = baaa

aaa = ba
abba = bbaa
abba = baba
abaa = bba
aaba = bba
aaab = bab

aba = baa
abab = baab
abaa = baaa
aaba = baaa
aaba = abaa

aaaa = baa
abaa = baaa

aaaa = aba
aaba = abaa

aaaa = bbb
abbb = bbba

aba = bbbb
abab = baba

aaba = ab
aabb = abba

aaaa = ba
abba = bbaa
abba = baba

aaaa = bab
abab = baba

a = baab
aaab = baaa

aaa = aba
aaba = abaa
aaab = abab
aaaa = abaa
aaaa = aaba

aaaa = abb
aabb = abba

aaaa = aab
aaab = aaba

a = aa

aba = abaa
aaba = abaa
a = aaaa

aa = aaa

aaab = aab
aaa = aaaa
aa = aaaa

aab = ab
aabb = abb
aaba = aba
aaab = ab
aaab = aab

a = aaa

aaab = ab
aa = aaaa

ab = b
abb = baab
abab = baab
abab = abb
aabb = bab
aaab = b

aba = ba
abba = bba
abba = baba
abab = bab
abaa = baa
aaba = ba
aaba = aba

abab = bb
abbb = bbab

abb = bb
abbb = bbb
abbb = babb
abba = bba
aabb = bb
aabb = abb

aab = b
aabb = bb
aabb = baab
aaba = ba
aaab = ab

ab = bab
abb = babb
abab = baab
aba = baba
ab = bbab
aab = baab
aab = abab

abba = b
abbb = bbba

ab = bbb
abab = baab
aba = bbba
aabb = baab
aab = bbab
aab = babb
aab = abbb

abb = bbbb
abbb = babb

aaa = aab
aaba = aabb
aaab = aabb
aaab = aaba
aaaa = aabb
aaaa = aaba
aaaa = aaab

aba = abb
abab = abbb
abaa = abba
aaba = aabb

a = bba
abba = bbaa
ab = bbab
aa = bbaa
aa = abba

a = babb
aabb = baba

aab = ba
aabb = bab
aaba = baa
aaab = aba

aab = bb
aabb = bbb
aabb = baab
aaba = bba
aaab = abb

abaa = b

abab = bbaa a = bbbb

aaaa = bb

aaa = ab
abab = abba
abaa = abb
aabb = abba
aaba = abb
aaab = abb

aaa = bba
abba = bbaa
aaab = bbab
aaaa = bbaa
aaaa = abba

aaaa = b abab = ba

abba = baab

aa = bbbb

abaa = ba
abba = bbaa

aa = b
abba = bbb
abb = baaa
abaa = bab
aaba = bab
aaab = bba

aba = bb
abbb = bbba
abab = bbb
abab = baba
abaa = bba
aaba = abb

abab = b
aabb = b

ab = bba
abb = bbab
aba = bbaa
aab = abba

aaa = bb
aaab = bbb
aaab = baaa

aaaa = bba
abba = bbaa

aaaa = ab
abab = abba
aabb = abba

aba = b
abab = baba

aa = bbb
abbb = bbba
aaa = bbba
aaa = abbb

aab = bbbb
aabb = baab

aa = abb
aabb = abba
aab = abbb
aaa = abba
aaa = aabb

ab = bbbb
abab = baab
aabb = baab

abb = ba
abbb = bab
abba = baa
aabb = aba

aa = bab
abab = baba
aab = babb
aaab = baaa
aaa = baba
aaa = abab

aaa = b
abaa = bb
aaba = bb
aaab = bb

aa = bba
abba = bbaa
aab = bbab
aaa = bbaa
aaa = abba

aaa = baa
abaa = bbaa
abaa = baaa
aaab = baab
aaaa = bbaa
aaaa = baaa
aaaa = abaa

aaba = b
aabb = baba

ab = aba
abb = abba
abab = abba
abab = abb
aba = abaa
ab = abaa
aab = aaba

aa = baa
abaa = baaa
aab = baab
aaa = baaa
aaa = abaa
aa = bbaa

a = baba
a = bbaa

a = ba
abba = baba
abba = baa
aba = bbaa
aba = abba
a = bbba

ab = baa
abb = baab
aba = baaa
aab = abaa

a = bb
abbb = baa
aba = bbab
aba = babb
aba = abbb
aab = bbba
aaa = baab

a = bbab
abab = bbaa

a = bbb
aa = bbba
aa = bbab
aa = babb
aa = abbb

a = abab
a = aabb

a = baa
abaa = baaa
ab = baab
aa = baaa
aa = abaa

a = aba
ab = abab
aaba = abaa
aa = abaa
aa = aaba

a = aab
aabb = ab
aaab = aaba
aa = aaba
aa = aaab