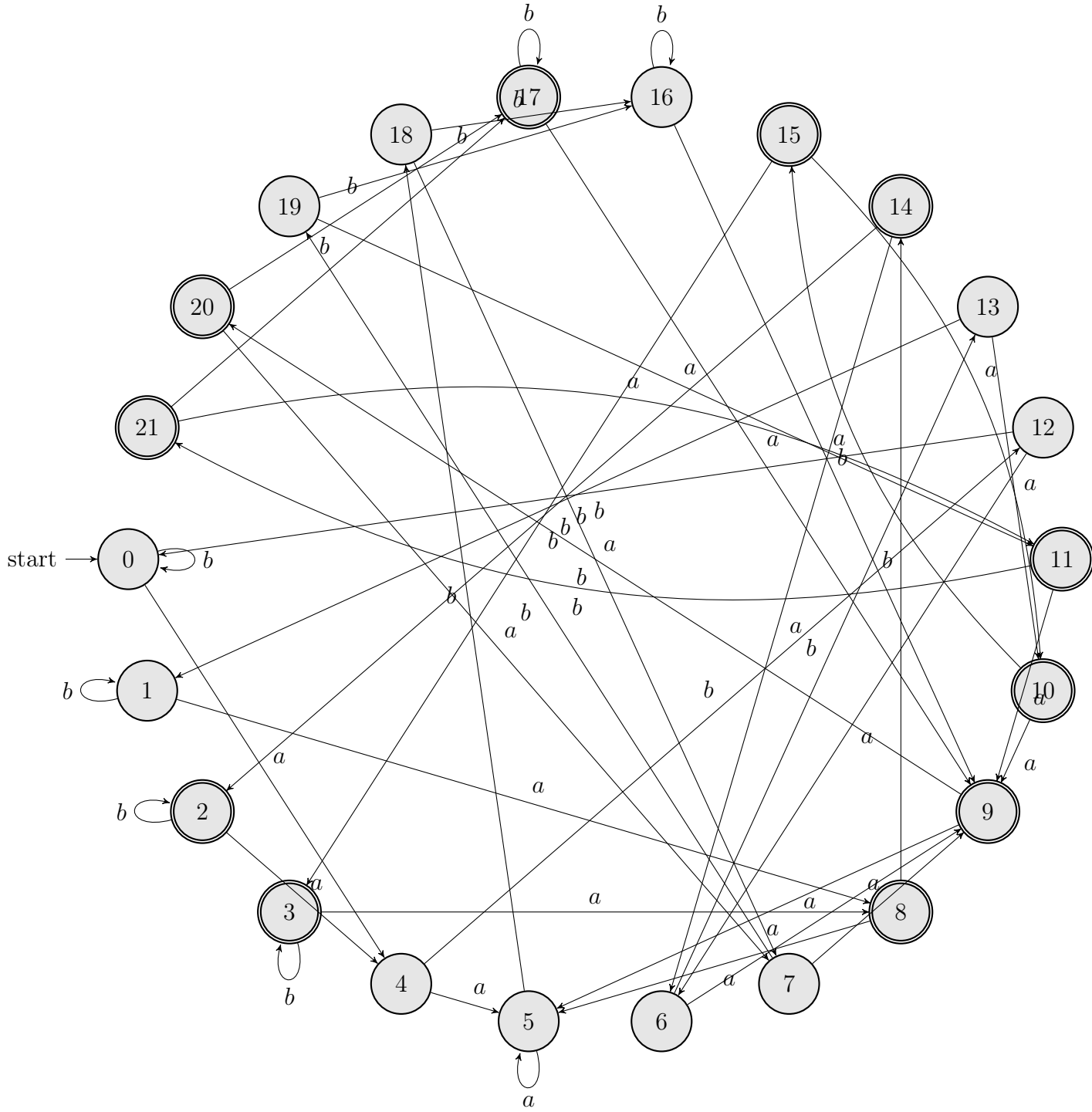$\Sigma = \{a, b\}$

$q_0 = 0$

$F = \{2, 3, 8, 9, 10, 11, 14, 15, 17, 20, 21\}$

$(((((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab)+ab)((bb^*a)b))^*(((((bb^*a)b)(ab)+ab)(ab))+((ab)(ab))(ab))(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*(((((bb^*a)b)(ab)+ab)(ab))+ab)^*(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*(((bb^*a)b)b))+(ab)b+b+(((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab)+ab)((bb^*a)b))^*(((bb^*a)b)b))^*(((((((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab)+ab)((bb^*a)b))^*(((((bb^*a)b)(ab)+ab)(ab))+((ab)(ab))(ab))(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*(((((bb^*a)b)(ab)+ab)(ab))+ab)^*(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*(((((bb^*a)b)(ab)+ab)(a(a(aa^*b))+(bb^*a)(aa^*b))+((bb^*a)b)((aa)(aa^*b))+(aa)(aa^*b)+((bb^*a)a)a^*b)+a(a(aa^*b))+(bb^*a)(aa^*b))+(((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab)+ab)((bb^*a)b))^*(((((bb^*a)b)(ab)+ab)(a(a(aa^*b))+(bb^*a)(aa^*b))+((bb^*a)b)((aa)(aa^*b))+(aa)(aa^*b)+((bb^*a)a)a^*b)+((ab)(ab))(a(a(aa^*b))+(bb^*a)(aa^*b))+(ab)((aa)(aa^*b))+(aa)a^*b)((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab)a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab))^*(bb^*(ab)+a(ab)+(bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*(ab)+(aa)b))+((((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab)+ab)((bb^*a)b))^*(((((bb^*a)b)(ab)+$

$ab)(ab))+((ab)(ab))(ab))(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(ab))+ab)^*(a(ab)+$

$((bb^*a)b)((((bb^*a)b)(ab) + ab)((bb^*a)b))^*((((bb^*a)b)(ab) + ab)(a(ab)) + ((bb^*a)b)((aa)b) + (aa)b)) +$

$(((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab) + ab)((bb^*a)b))^*((((bb^*a)b)(ab) + ab)(a(ab)) + ((bb^*a)b)((aa)b) +$

$(aa)b)+((ab)(ab))(a(ab))+(ab)((aa)b)+(((((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+$

$ab)(ab))+((ab)(ab))(ab))(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(ab))+ab)^*(((bb^*a)b)((((bb^*a)b)(ab)+$

$ab)((bb^*a)b))^*((((bb^*a)b)(ab) + ab)(a(a(aa^*b)) + (bb^*a)(aa^*b)) + ((bb^*a)b)((aa)(aa^*b)) + (aa)(aa^*b) +$

$((bb^*a)a)a^*b)+a(a(aa^*b))+(bb^*a)(aa^*b))+(((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+$

$ab)(a(a(aa^*b))+(bb^*a)(aa^*b))+((bb^*a)b)((aa)(aa^*b))+(aa)(aa^*b)+((bb^*a)a)a^*b)+((ab)(ab))(a(a(aa^*b))+$

$(bb^*a)(aa^*b))+(ab)((aa)(aa^*b))+(aa)a^*b)((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*(ab)+(aa)b))((((aa)(aa^*b)+$

$bb^*(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab)+ab)((bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab))^*($

$a(ab) + (bb^*(a(aa^*b)) + a(a(aa^*b)))((aa)(aa^*b) + bb^*(a(aa^*b)))^*(bb^*(ab) + (aa)b)) + ((aa)(aa^*b) +$

$bb^*(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*(ab)+(aa)b)+bb^*(ab)+(aa)b)^*((((aa)(aa^*b)+bb^*(a(aa^*b)))((aa)(aa^*b)+$

$bb^*(a(aa^*b)))^*(ab)+ab)((bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab))^*(ab))+((((((ab)(ab))((bb^*a)b))((((bb^*a)b)($

$ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(ab))+((ab)(ab))(ab))(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+$

$ab)(ab))+ab)^*(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(a(a(aa^*b))+(bb^*a)(aa^*b))+$

$((bb^*a)b)((aa)(aa^*b))+(aa)(aa^*b)+((bb^*a)a)a^*b)+a(a(aa^*b))+(bb^*a)(aa^*b))+(((ab)(ab))((bb^*a)b))((((bb^*a)b)(a$

$ab)((bb^*a)b))^*((((bb^*a)b)(ab) + ab)(a(a(aa^*b)) + (bb^*a)(aa^*b)) + ((bb^*a)b)((aa)(aa^*b)) + (aa)(aa^*b) +$

$((bb^*a)a)a^*b)+((ab)(ab))(a(a(aa^*b))+(bb^*a)(aa^*b))+(ab)((aa)(aa^*b))+(aa)a^*b)((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab$

$a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab))^*(ab))((((bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab))$

$a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab))^*(bb^*(ab)+a(ab)+(bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+$

$bb^*(a(aa^*b)))^*(bb^*(ab)+(aa)b))+bb^*(ab)+a(ab)+(bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*(ab)+$

$(aa)b))((((aa)(aa^*b)+bb^*(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab)+ab)((bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+$

$bb^*(a(aa^*b)))^*(ab))^*(bb^*(ab)+a(ab)+(bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*(ab)+$

$(aa)b))+((aa)(aa^*b)+bb^*(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*(ab)+(aa)b)+bb^*(ab)+(aa)b)^*(((((aa)(aa^*b)+$

$bb^*(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab)+ab)((bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab))^*($

$((bb^*(a(aa^*b)) + a(a(aa^*b)))((aa)(aa^*b) + bb^*(a(aa^*b)))^*(ab))((bb^*(a(aa^*b)) + a(a(aa^*b)))((aa)(aa^*b) +$

$bb^*(a(aa^*b)))^*(ab))^*(ab)+ab)^*(((((bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab))((bb^*(a(aa^*b))+$

$a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab))^*(bb^*(ab)+a(ab)+(bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+$

$bb^*(a(aa^*b)))^*(bb^*(ab)+(aa)b))+bb^*(ab)+a(ab)+(bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*(ab)+$

$(aa)b))((((aa)(aa^*b)+bb^*(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab)+ab)((bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+$

$bb^*(a(aa^*b)))^*(ab))^*(bb^*(ab)+a(ab)+(bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*(ab)+$

$(aa)b))+((aa)(aa^*b)+bb^*(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*(ab)+(aa)b)+bb^*(ab)+(aa)b)^*(((((aa)(aa^*b)+$

$bb^*(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab)+ab)((bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab))^*($

$a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*a+(aa))+bb^*a+a(a+1))+bb^*(a+1)+(aa)+1+((aa)(aa^*b)+$

$bb^*(a(aa^*b)))((aa)(aa^*b) + bb^*(a(aa^*b)))^*(bb^*a + (aa))) + ((bb^*(a(aa^*b)) + a(a(aa^*b)))((aa)(aa^*b) +$

$bb^*(a(aa^*b)))^*(ab))((bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab))^*((bb^*(a(aa^*b))+a(a(aa^*b)))((aa$

$bb^*(a(aa^*b)))^*(bb^*a+(aa))+bb^*a+a(a+1))+(bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*a+$

$(aa))+bb^*(a+1)+a(a+1)+1)+((((((((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+$

$ab)(ab))+((ab)(ab))(ab))(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(ab))+ab)^*(((bb^*a)b)((((bb$

$ab)((bb^*a)b))^*((((bb^*a)b)(ab) + ab)(a(a(aa^*b)) + (bb^*a)(aa^*b)) + ((bb^*a)b)((aa)(aa^*b)) + (aa)(aa^*b) +$

$((bb^*a)a)a^*b)+a(a(aa^*b))+(bb^*a)(aa^*b))+(((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+$

$ab)(a(a(aa^*b))+(bb^*a)(aa^*b))+((bb^*a)b)((aa)(aa^*b))+(aa)(aa^*b)+((bb^*a)a)a^*b)+((ab)(ab))(a(a(aa^*b))+$

$(bb^*a)(aa^*b))+(ab)((aa)(aa^*b))+(aa)a^*b)((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab))((bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*$

$bb^*(a(aa^*b)))^*(ab))^*(bb^*(ab)+a(ab)+(bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*(ab)+$

$(aa)b))+((((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(ab))+((ab)(ab))(ab))(((bb^*a)b$

$ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(ab))+ab)^*(a(ab)+((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+$

$ab)(a(ab))+((bb^*a)b)((aa)b)+(aa)b))+(((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+$

$ab)(a(ab))+((bb^*a)b)((aa)b)+(aa)b)+((ab)(ab))(a(ab))+(ab)((aa)b)+(((((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab)+$

$ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(ab))+((ab)(ab))(ab))(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+$

$ab)(ab))+ab)^*(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(a(a(aa^*b))+(bb^*a)(aa^*b))+$

$((bb^*a)b)((aa)(aa^*b))+(aa)(aa^*b)+((bb^*a)a)a^*b)+a(a(aa^*b))+(bb^*a)(aa^*b))+(((ab)(ab))((bb^*a)b))((((bb^*a)b)(a$

$ab)((bb^*a)b))^*((((bb^*a)b)(ab) + ab)(a(a(aa^*b)) + (bb^*a)(aa^*b)) + ((bb^*a)b)((aa)(aa^*b)) + (aa)(aa^*b) +$

$((bb^*a)a)a^*b)+((ab)(ab))(a(a(aa^*b))+(bb^*a)(aa^*b))+(ab)((aa)(aa^*b))+(aa)a^*b)((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*$

$(aa)b))((((aa)(aa^*b)+bb^*(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab)+ab)((bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+$

$bb^*(a(aa^*b)))^*(ab))^*(bb^*(ab)+a(ab)+(bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*(ab)+$

$(aa)b))+((aa)(aa^*b)+bb^*(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*(ab)+(aa)b)+bb^*(ab)+(aa)b)^*((((aa)(aa^*b)+$

$bb^*(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab)+ab)((bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab))^*($

$a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*a+(aa))+bb^*a+a(a+1))+bb^*(a+1)+(aa)+1+((aa)(aa^*b)+$

$bb^*(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*a+(aa)))+((((((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab)+ab)((bb^*a)b))^*(((($

$ab)(ab))+((ab)(ab))(ab))(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(ab))+ab)^*(((bb^*a)b)(((($

$ab)((bb^*a)b))^*((((bb^*a)b)(ab) + ab)(a(a(aa^*b)) + (bb^*a)(aa^*b)) + ((bb^*a)b)((aa)(aa^*b)) + (aa)(aa^*b) +$

$((bb^*a)a)a^*b)+a(a(aa^*b))+(bb^*a)(aa^*b))+(((ab)(ab))((bb^*a)b))((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+$

$ab)(a(a(aa^*b))+(bb^*a)(aa^*b))+((bb^*a)b)((aa)(aa^*b))+(aa)(aa^*b)+((bb^*a)a)a^*b)+((ab)(ab))(a(a(aa^*b))+$

$(bb^*a)(aa^*b))+(ab)((aa)(aa^*b))+(aa)a^*b)((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*a+(aa))+((((ab)(ab))((bb^*a)b))((((bb^*$

$ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(ab))+((ab)(ab))(ab))(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+$

$ab)(ab))+ab)^*(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(a(a+1)+(bb^*a))+((bb^*a)b)((aa))+$

$(aa)+bb^*+1)+a(a+1)+(bb^*a)+bb^*+1)+((ab)(ab))(a(a+1)+(bb^*a))+(ab)((aa))+(((ab)(ab))((bb^*a)b))((((bb^*a)b)($

$ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(a(a+1)+(bb^*a))+((bb^*a)b)((aa))+(aa)+bb^*+1)+((((((ab)(ab))((bb^*a)b))(((($

$ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(ab))+((ab)(ab))(ab))(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+$

$ab)(ab))+ab)^*(((bb^*a)b)((((bb^*a)b)(ab)+ab)((bb^*a)b))^*((((bb^*a)b)(ab)+ab)(a(a(aa^*b))+(bb^*a)(aa^*b))+$

$((bb^*a)b)((aa)(aa^*b))+(aa)(aa^*b)+((bb^*a)a)a^*b)+a(a(aa^*b))+(bb^*a)(aa^*b))+(((ab)(ab))((bb^*a)b))((((bb^*a)b)(a$

$ab)((bb^*a)b))^*((((bb^*a)b)(ab) + ab)(a(a(aa^*b)) + (bb^*a)(aa^*b)) + ((bb^*a)b)((aa)(aa^*b)) + (aa)(aa^*b) +$

$((bb^*a)a)a^*b)+((ab)(ab))(a(a(aa^*b))+(bb^*a)(aa^*b))+(ab)((aa)(aa^*b))+(aa)a^*b)((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab)$

$a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(ab))^*((bb^*(a(aa^*b))+a(a(aa^*b)))((aa)(aa^*b)+bb^*(a(aa^*b)))^*(bb^*a+$

$(aa)) + bb^*a + a(a + 1)))$