Tunnel traffic (Andre, England)

A boulder falls onto a mountain road, temporarily blocking access to a tunnel. A few drivers get out of their cars to help move the boulder. After they successfully clear the entrance to the tunnel, they notice some unusual traffic has accumulated on the two-lane road behind them. The traffic jam consists of eighteen white cars and eighteen black cars. The first car in the left lane is white and the first car in the right lane is black. The colours of the cars behind them in each lane alternate perfectly. When passing through the narrow tunnel, the two lanes of traffic merge into one, and when they come out the other side, the single lane branches to two toll booths. Assuming that the first car through the tunnel is a black car and the last car through is a white car, and that the cars reach the toll booth in pairs – meaning that the first cars exit together, then the next two cars exit together, and so on – what is the greatest possible number of existing pairs that will match in colour?