We are asked to eliminate all lambda productions from:

S 🡪 AaB | aaB

A 🡪 λ

B 🡪 bbA | λ

Vn = {A,B,S}

So we get the following productions …

S 🡪 λaB | aaB | λaB | Aaλ | λaλ | aaλ

B 🡪 bbλ | bb

Which when reduced is:

S 🡪 aB | aaB | a | aa

B 🡪 bb

So finally sub out the B’s

S 🡪 a | aa | abb | aabb

