

$\chi = 0 = 2 - g - r = 2 - g$  since as before that the edges are identified in pairs implies  $r = 0$ . In this case  $0 = 2 - g \Rightarrow g = 2$ . The edge equation for the surface is

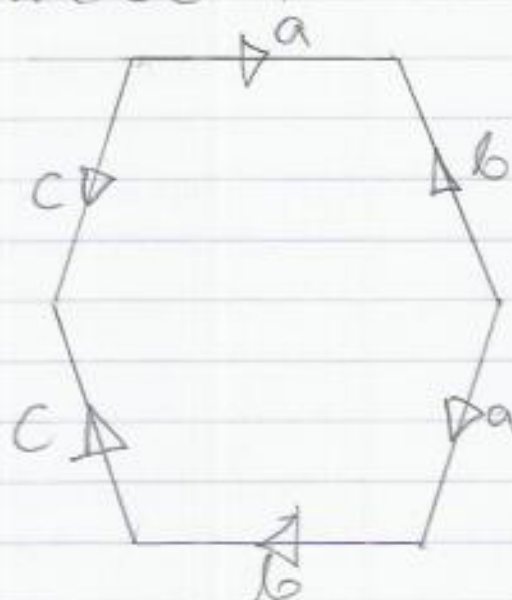
$$aa'bb' = 1$$

or equivalently

$$aa'bb'cc'^{-1} = 1 \quad (\text{ie } S \cong S^2 \# 2\mathbb{RP}^2)$$

Using Lemma 1

$$a'b^{-1}a'bcc'^{-1} = 1$$



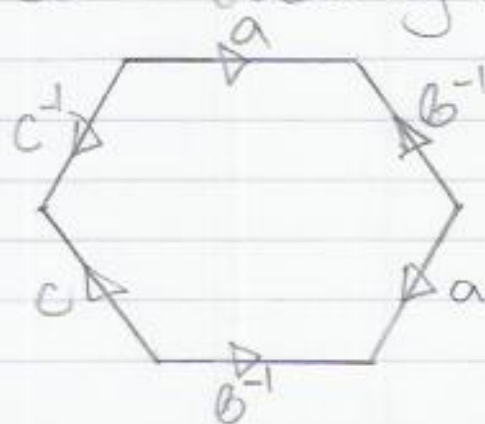
$$\chi = 1, r = 0$$

$$\chi = 2 - g - r$$

$$1 = 2 - g \Rightarrow g = 1$$

The edge equation for the surface is  $aa' = 1$ , or equivalently  $aa'b'b'cc'^{-1} = 1$  (ie  $S \cong 2S^2 \# \mathbb{RP}^2$ ).

$$ab^{-1}ab^{-1}cc'^{-1} = 1 \quad (\text{Using Lemma 1}).$$



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