

## 0.1 The direct product of groups

If we have two groups  $G$  and  $H$  we can form new group  $G \times H$ .

For every  $g \in G$  and  $h \in H$  there is  $(g, h) \in G \times H$ .

The binary operation we have is:

$$(g_1, h_1)(g_2, h_2) = (g_1g_2, h_1h_2)$$