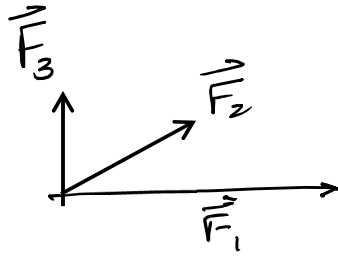
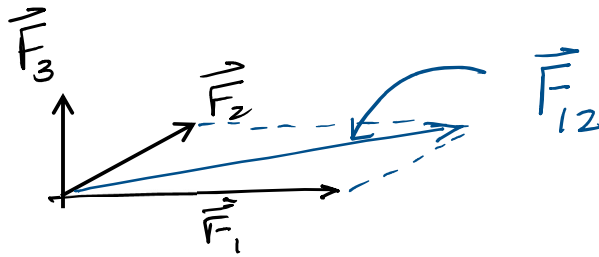


### Adding more than two forces:

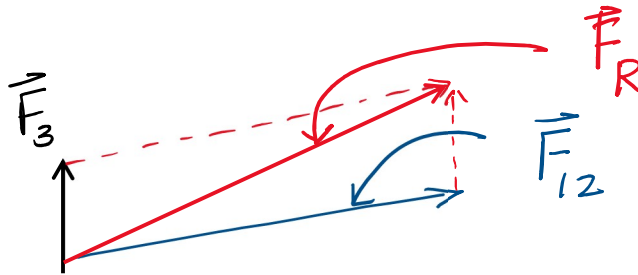
We can extend the force addition method for two vectors to three or more vectors.



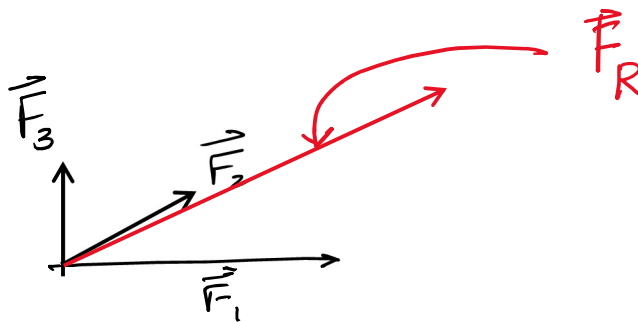
Step 1: Add vectors  $F_1$  and  $F_2$  to give you resultant vector  $F_{12}$ .



Step 2: Now add resultant vector  $F_{12}$  to vector  $F_3$ . This will give you resultant vector  $F_R$ .



The resultant vector  $F_R$  is the sum of the three vectors  $F_1$ ,  $F_2$ , and  $F_3$ .



As you can see the graphical methods gets complicated very soon. Therefore, we use rectangular component method to make our lives easier.