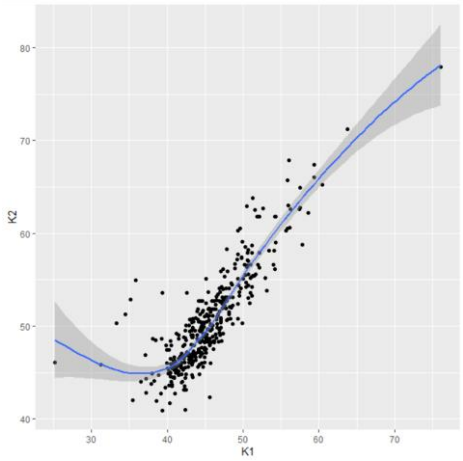
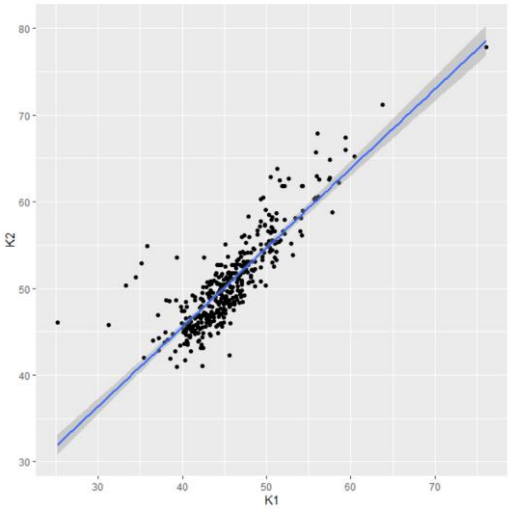
1. **Study the relation between K1 and K2 with smoother (by default and using linear regression). The plots should look like those shown in Figure 1.**

ggplot(qdata, aes(x = K1, y = K2)) + geom_point()+ geom_smooth()

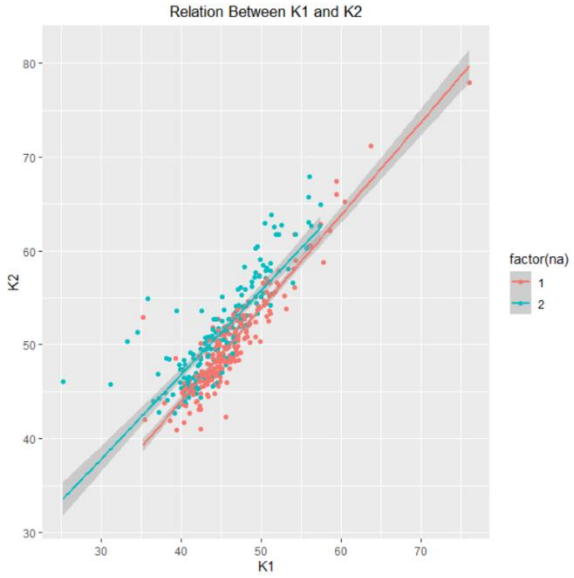


ggplot(qdata, aes(x = K1, y = K2)) + geom_point()+geom_smooth(method = "lm")



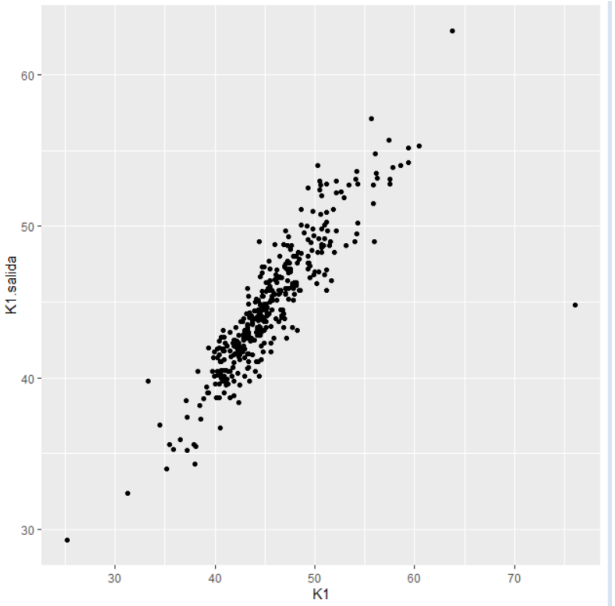
2. **Study the relation between K1 and K2 distinguishing by factor na, according to what is shown in Figure 2 (note the title).**

```
ggplot(qdata, aes(x = K1, y = K2, color = factor(na))) +
geom_point()+
 geom_smooth(method = "lm") +
 labs(title= 'Relation Between K1 and K2') +
 theme(plot.title = element_text(hjust = 0.5))
```



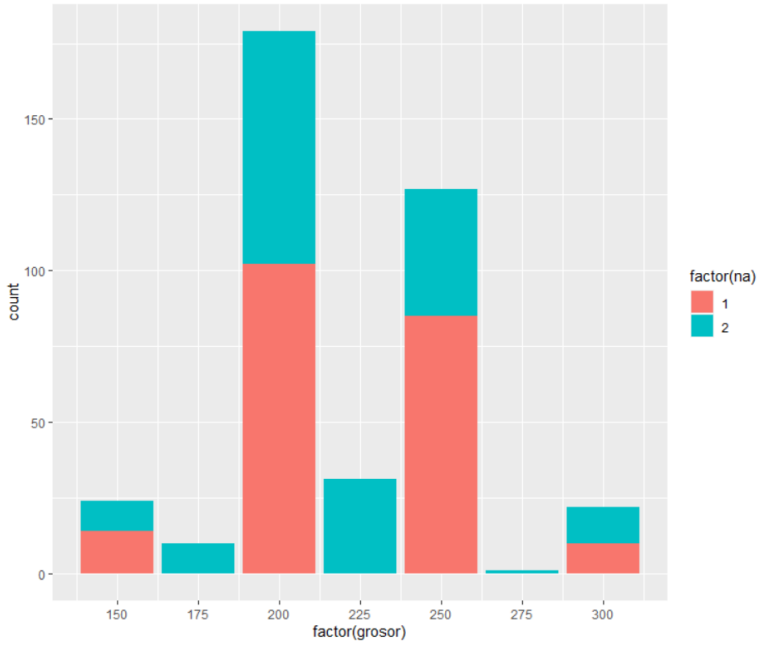
3. **Study the relation between K1 and K1.salida (see Figure 3)**

```
ggplot(qdata, aes(x = K1, y = K1.salida)) + geom_point()
```



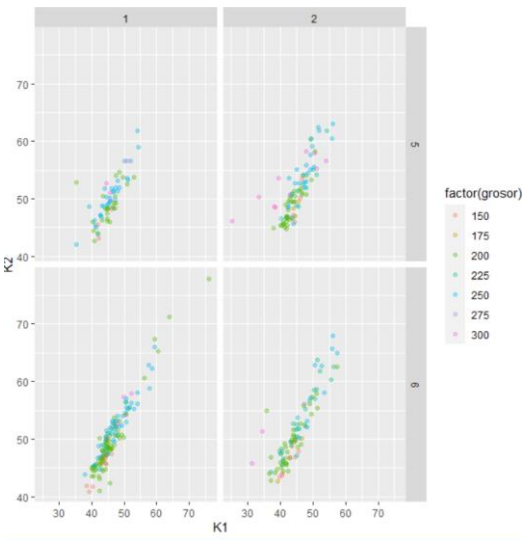
4. **Build a histogram in terms of grosor (note that grosor should be taken as a factor) of the inserted ring (see Figure 4)**

```
ggplot(qdata, aes(x =grosor,fill=factor(na))) + geom_bar (position =
position_stack(reverse = TRUE))+ scale_x_continuous(breaks= seq(150,300, by =
25))+labs(x= 'factor(grosor)')
```



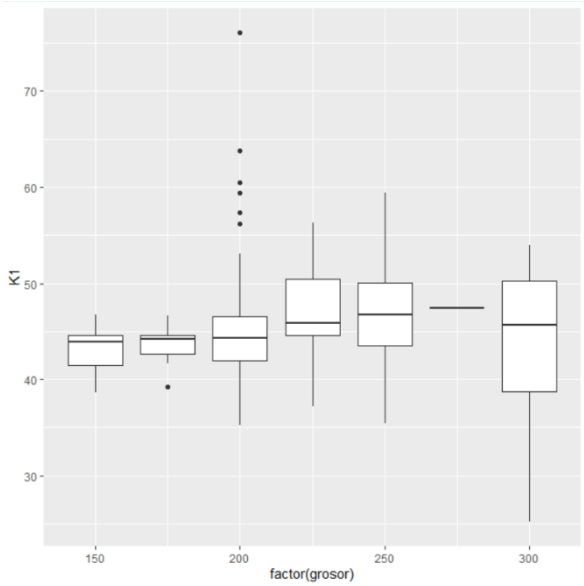
5. **Build a scatter plot of the relation between K1 and K2 with "faceting" in terms of the parameters diam and na, by assigning different colours to the points according to the thickness (grosor) of the ring. In order to visualise all points correctly use a transparency of value 1/3.**

```
ggplot(qdata, aes(x = K1, y = K2, color = factor(grosor))) +
 geom_point(alpha = 1/3) +
 facet_grid(diam ~ na)
```



6. **Create two boxplots that show a summary of the distributions of K1 and K2 (separately) with respect to the thickness (grosor) as shown Figure 6**

ggplot(qdata, aes(x = grosor, y =K1,group=grosor)) + geom_boxplot()+
labs(x = "factor(grosor)")



ggplot(qdata, aes(x = grosor, y =K2,group=grosor)) + geom_boxplot()+
labs(x = "factor(grosor)")