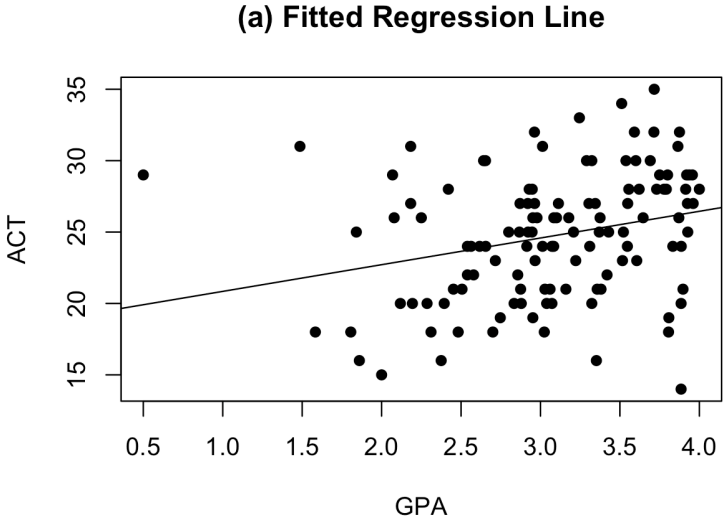
> g$coefficients # 取出係數
Intercept X
18.975441 1.870353
> plot(G,pch=16, main = "(a) Fitted Regression Line")
> abline(g$coefficients) # 畫出回歸線 a:intercept b:
slope
>



(b) no it look not fit
> a=g$coefficients[1] + 30*g$coefficients[2]
> a
Intercept
3.278863
2.

> anova(g_lm)

Analysis of Variance Table

Response: G$GPA

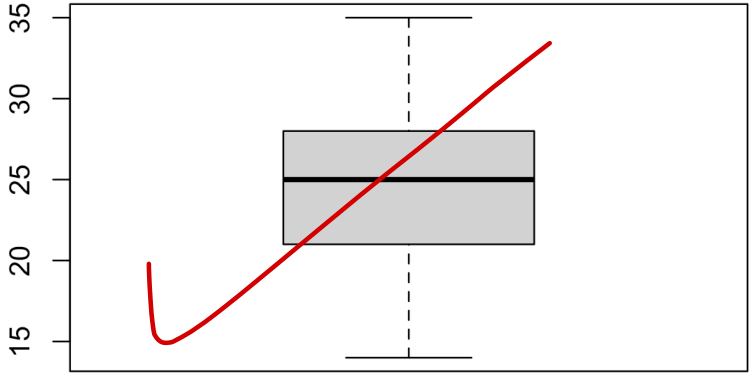
	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
G$ACT	1	3.588	3.5878	9.2402	0.002917	**
Residuals	118	45.818	0.3883			

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(b Decision Rule : if F > F(0.99,118) Reject H0
Pr(>F) = 0.0029 < 0.01 -> Recjct H0
Exist linear association between GPA & ACT

3.

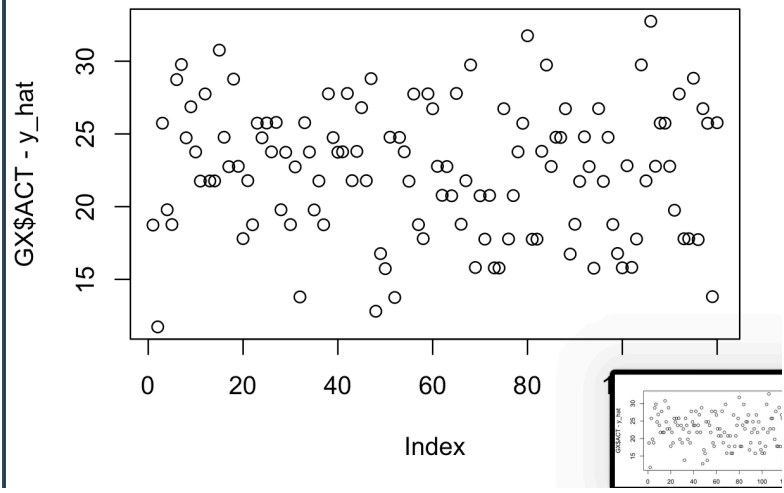
```
> boxplot(GX$ACT)
>
```



B

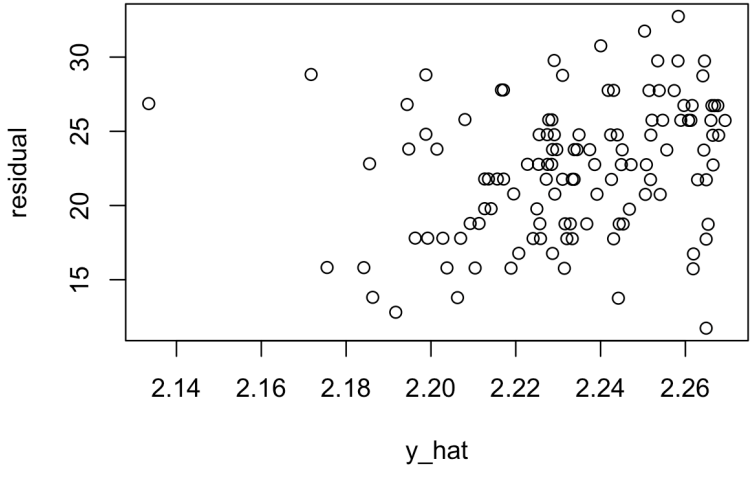
```
> b0 = 2.114049
> b1 = 0.03882713
> b0 = 2.114049
> b1 = 0.03882713
```

```
> y_hat = b0 + b1*G$GPA
> plot(GX$ACT-y_hat)
```



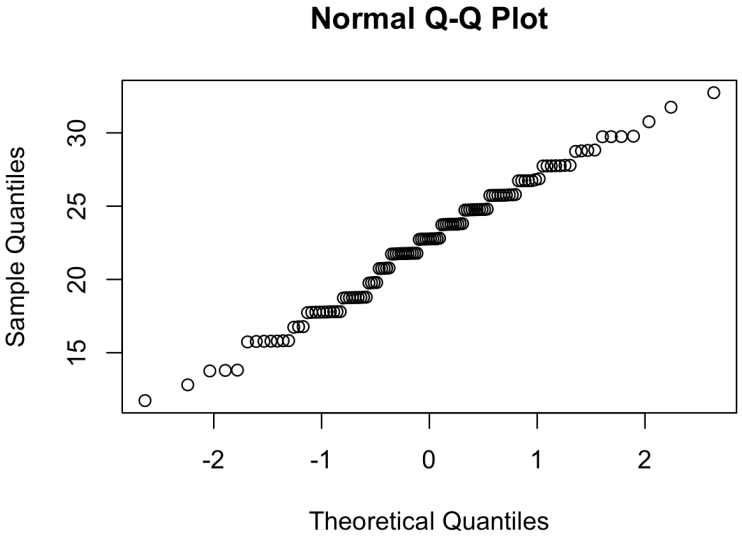
C

```
> residual = GX$ACT-y_hat
> plot(y_hat,residual)
```



D

> qqnorm(residual)

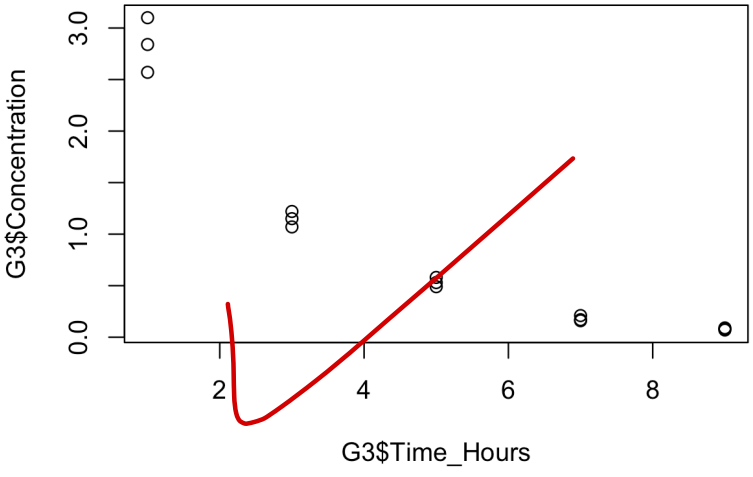


\

4.

A

> plot(G3$Time_Hours,G3$Concentration)



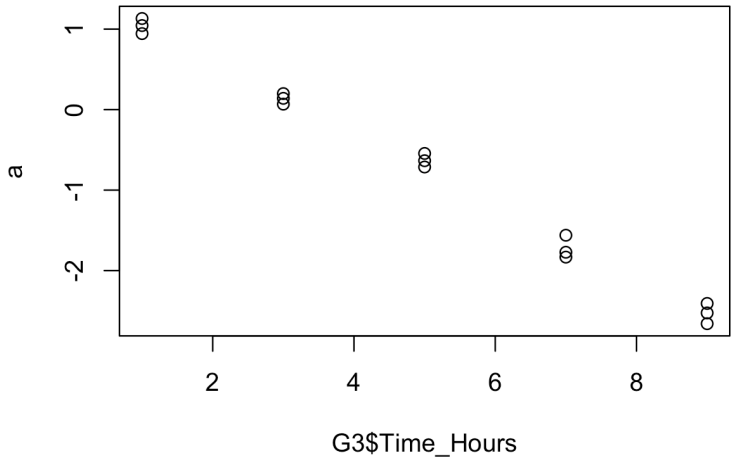
X' = 1/X

B

C

a = log(G3$Concentration)

plot(G3$Time_Hours,a)


a
1
0
-1
-2
2
4
6
8
G3$Time_Hours