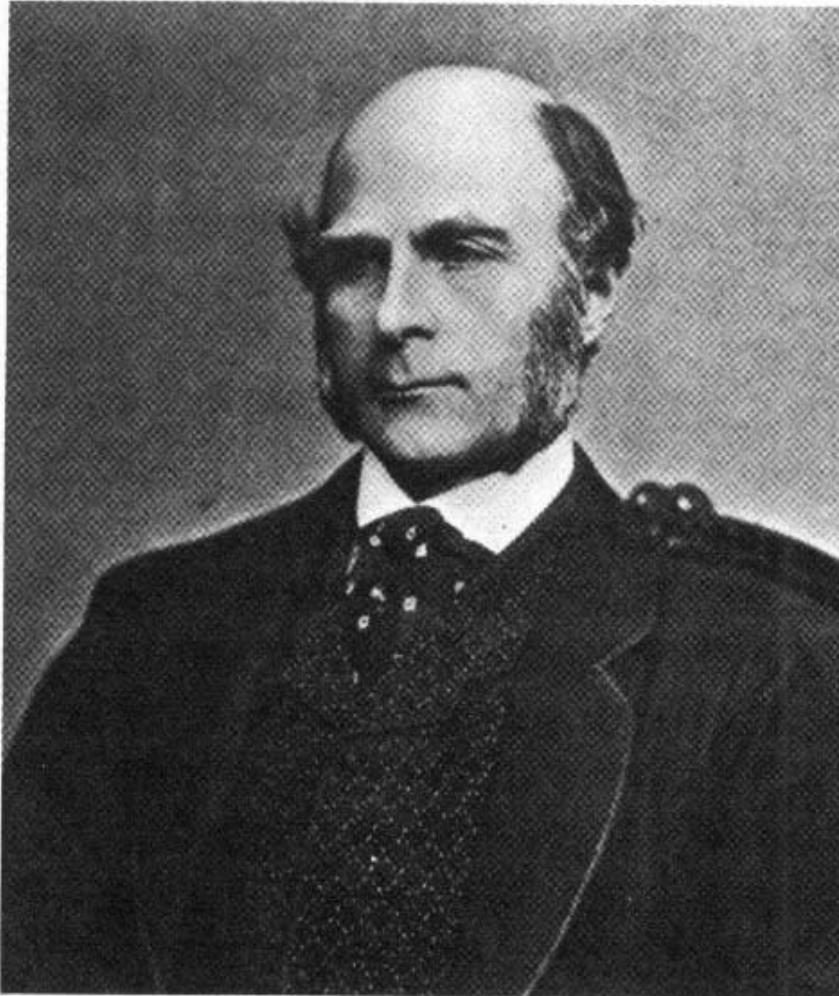


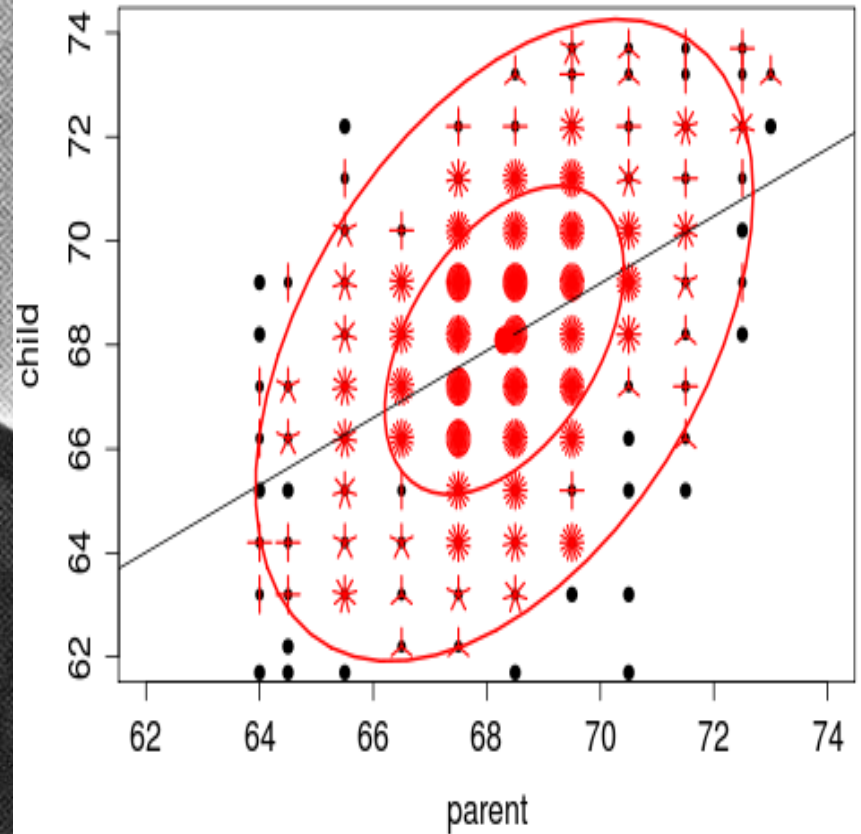
# TƯƠNG QUAN & HỒI QUI TUYẾN TÍNH

# TƯƠNG QUAN VÀ HỒI QUI

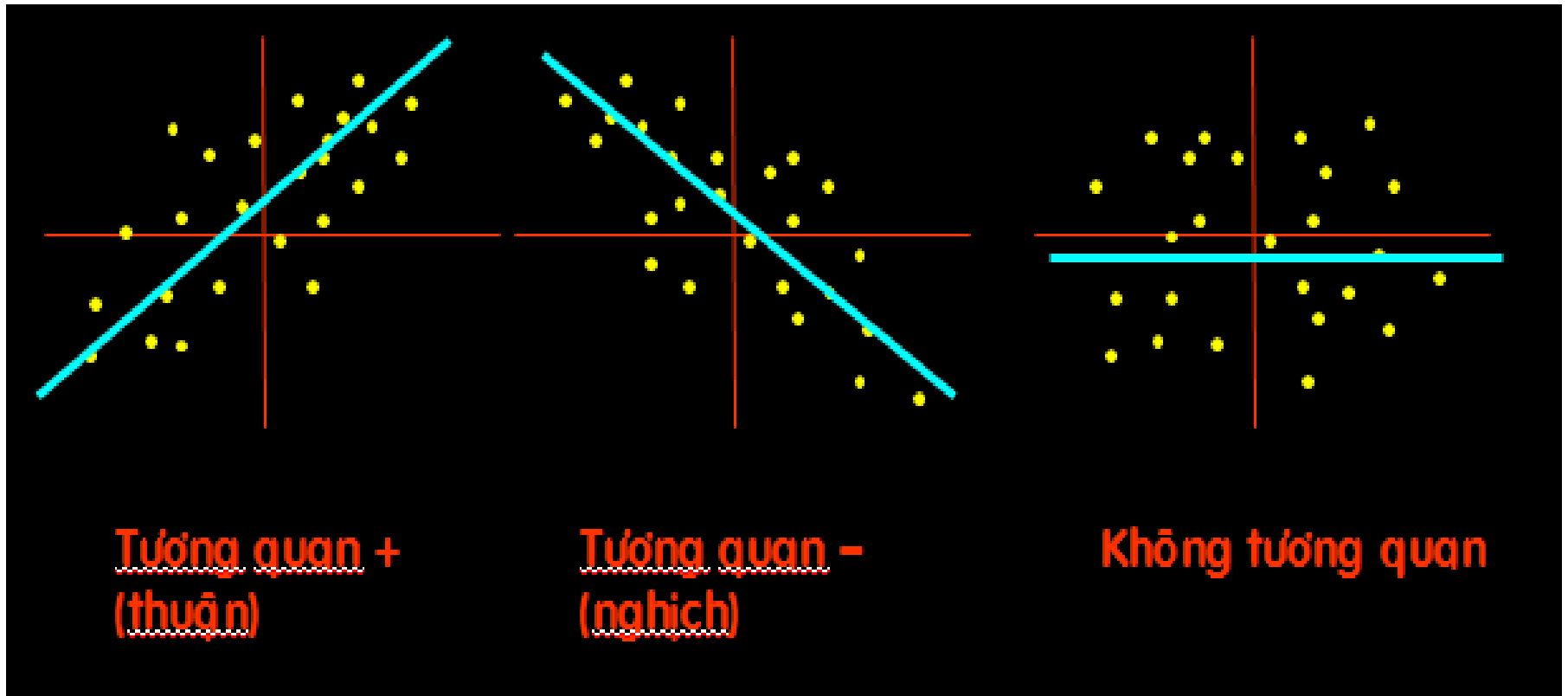
“Regression toward the mean”



*Francis Galton (1822–1911)*

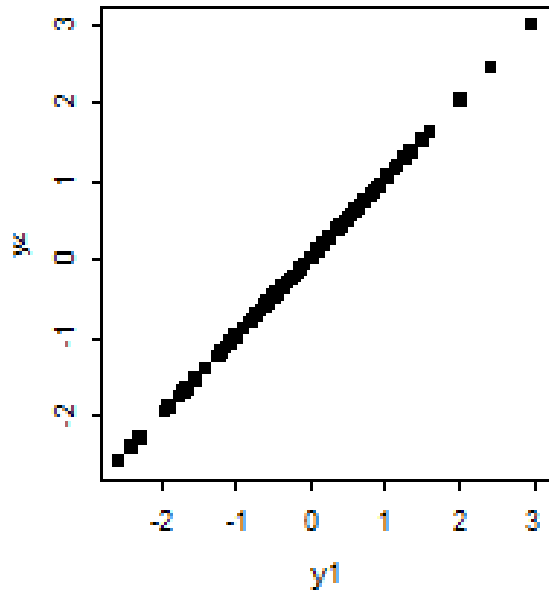


# TƯƠNG QUAN

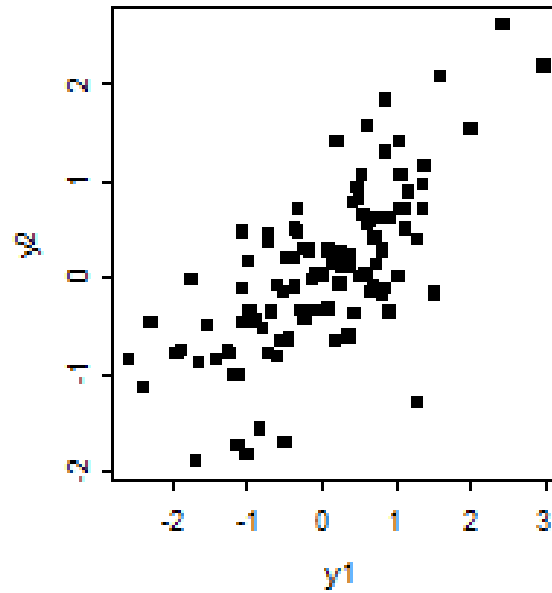


Tương quan: đo lường sự kết hợp tuyến tính giữa 2 biến  $x, y$  (không có sự phân biệt giữa 2 biến)

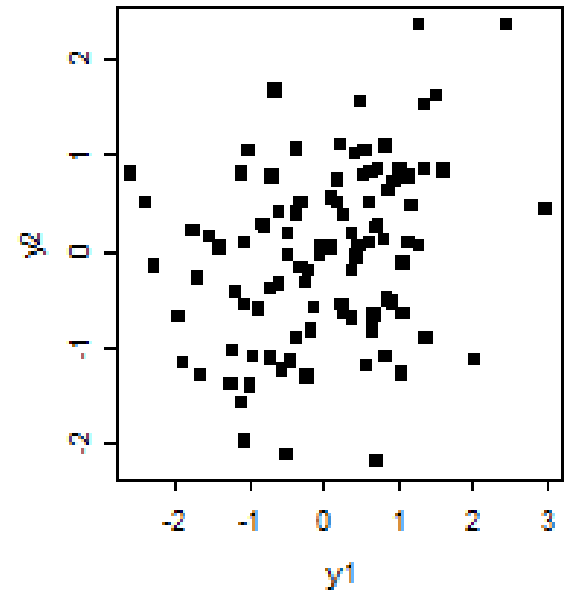
# TƯƠNG QUAN



$$r = +1$$

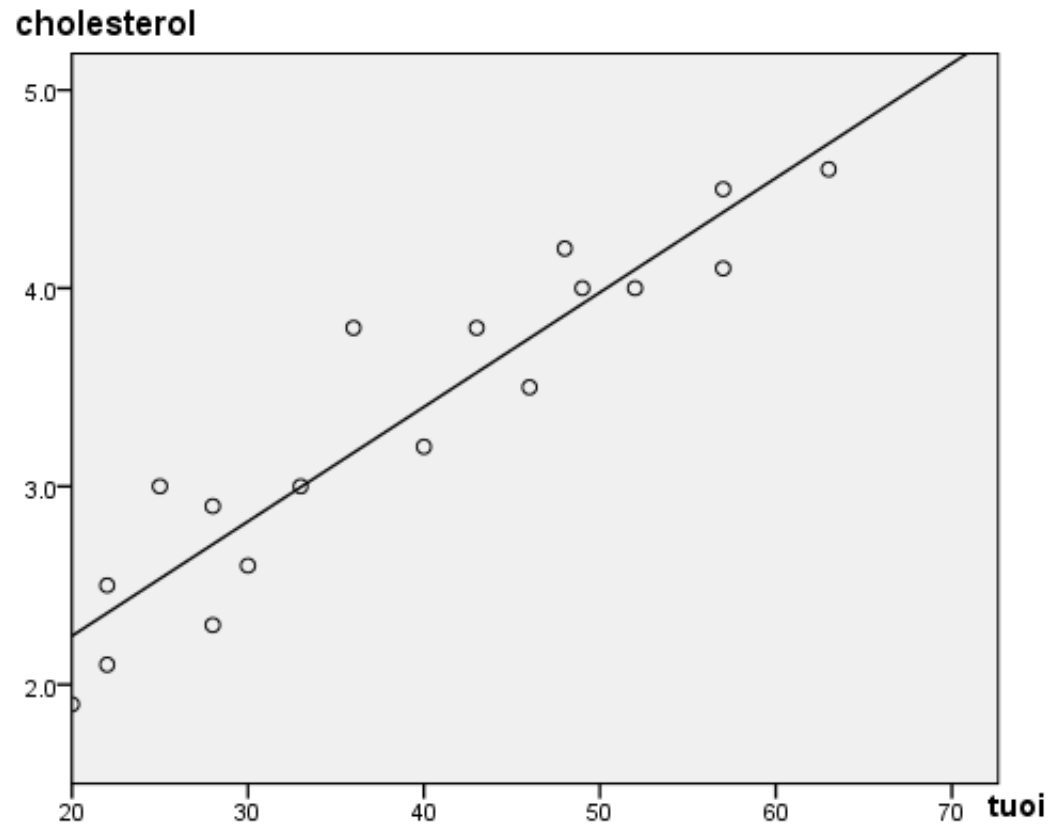


$$r = +.70$$



$$r = +.30$$

# TƯƠNG QUAN

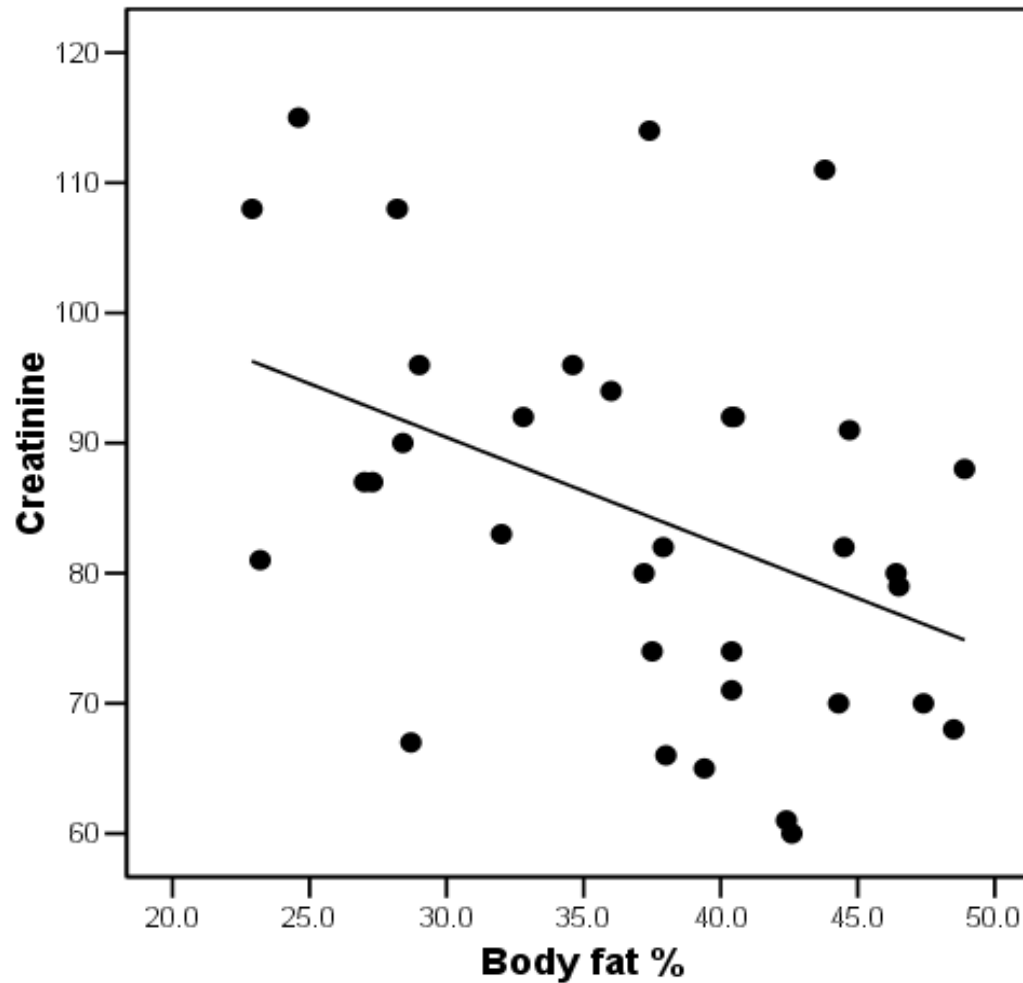


**Model Summary**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.937	.877	.870	.303

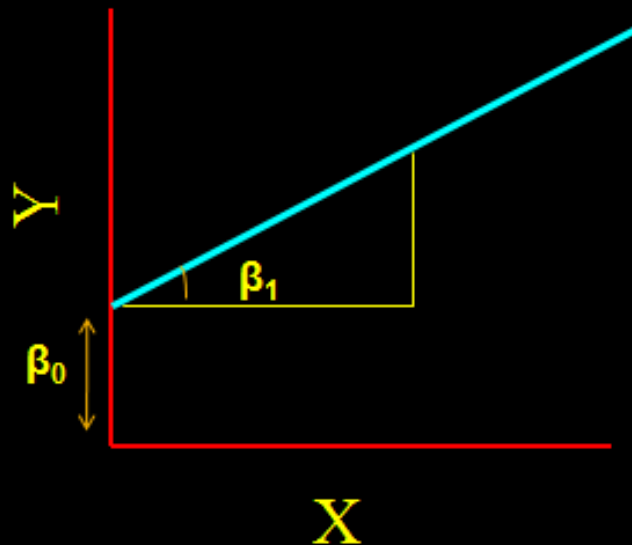
The independent variable is tuoi.

# TƯƠNG QUAN



# HỒI QUI TUYẾN TÍNH

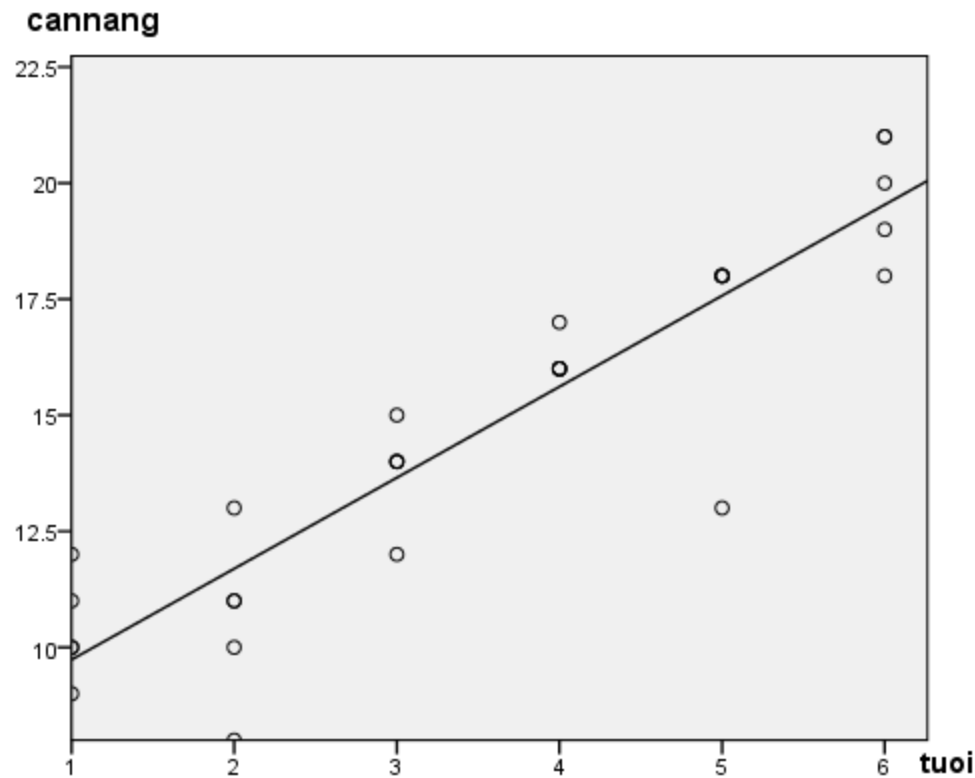
$$Y = \beta_0 + \beta_1 X$$



# HỒI QUI TUYẾN TÍNH

Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
tuoi	1.960	.160	.918	12.240	.000
(Constant)	7.773	.624		12.464	.000



$$Y = 1,96 X + 7,77$$

$$\text{Cân nặng} = 7,77 + 1,96 (\text{tuổi})$$

Hồi qui: ước lượng, dự báo biến y trên cơ sở biến X đã cho



# MÔ HÌNH TUYẾN TÍNH

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i$$

intercept

Điểm cắt

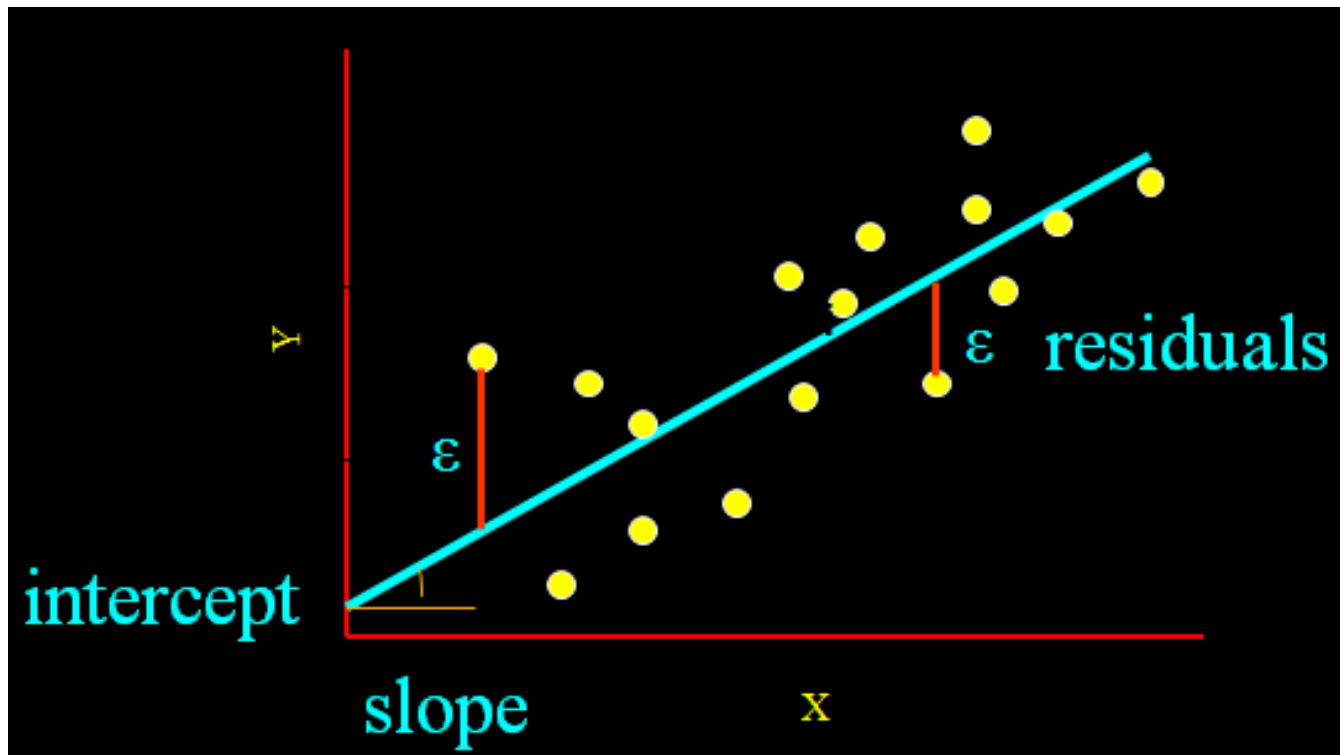
slope

Độ dốc

residuals

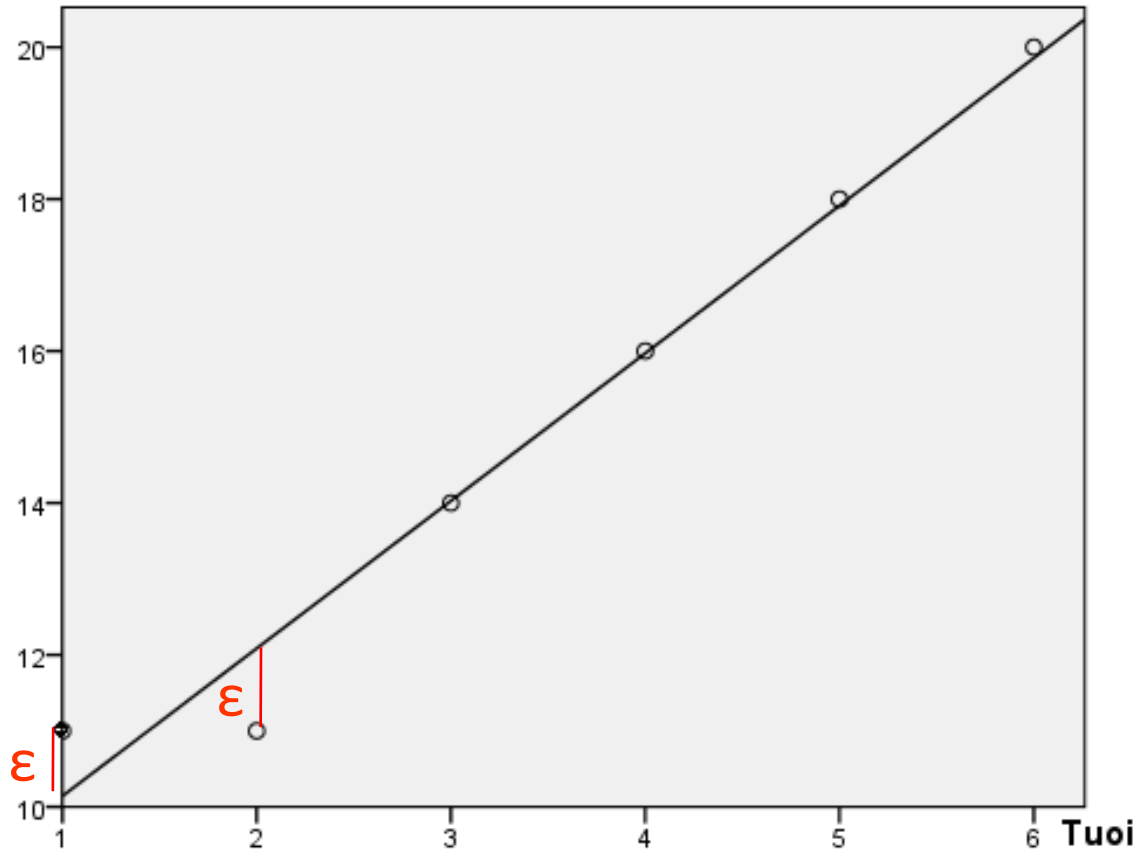
Phần dư

# HỒI QUI TUYẾN TÍNH



# HỒI QUI TUYẾN TÍNH

Cannang



ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	66.057	1	66.057	136.000	.000
Residual	1.943	4	.486		
Total	68.000	5			

The independent variable is Tuoi.

# HỒI QUI TUYẾN TÍNH

## Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.986	.971	.964	.697

The independent variable is Tuoi.

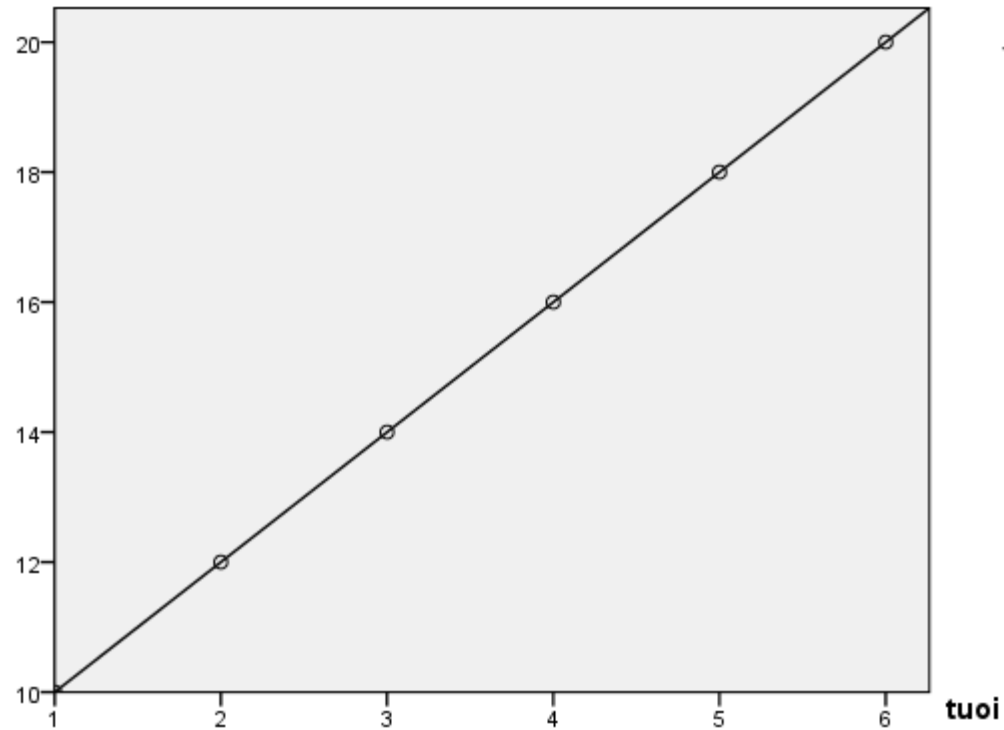
## ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	66.057	1	66.057	136.000	.000
Residual	1.943	4	.486		
Total	68.000	5			

The independent variable is Tuoi.

# HỒI QUI TUYẾN TÍNH

cannang



ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	70.000	1	70.000	.	.
Residual	.000	4	.000		
Total	70.000	5			

The independent variable is tuoi.

# HỒI QUI TUYẾN TÍNH

## Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
1.000	1.000	1.000	.000

The independent variable is Tuoi.

## ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	70.000	1	70.000	.	.
Residual	.000	4	.000		
Total	70.000	5			

The independent variable is Tuoi.

# HỒI QUI TUYẾN TÍNH

