

(Country)	(GDP)	(PEDs)					
i	x_i	y_i	$x_i - \bar{x}$	$(x_i - \bar{x})^2$	$y_i - \bar{y}$	$(y_i - \bar{y})^2$	$(x_i - \bar{x}) \bullet (y_i - \bar{y})$
Australia	48	1.2	14	196	-1.1	1.21	-15.4
Canada	63	0.7	29	841	-1.6	2.56	-46.4
Colombia	17	2.5	-17	289	0.2	0.04	- 3.4
Dominican	9	3.9	-25	625	1.6	2.56	-40.0
JapanTaiwan	53	1.6	19	361	-0.7	0.49	-13.3
Mexico	18	3.2	-16	256	0.9	0.81	-14.4
PuertoRico	26	2.4	- 8	64	0.1	0.01	- 0.8
USA	56	1.0	22	484	-1.3	1.69	-28.6
Venezuela	16	4.2	-18	324	1.9	3.61	-34.2
Σ			SST _x = 3440		SST _y = 12.98		-196.5
Σ/n	34 = \bar{x}	2.3 = \bar{y}		382.2 = var(x)		1.44 = var(y)	-21.83 = cov(x,y)

Slope: $\widehat{\beta}_1 = \frac{cov(x,y)}{var(x)}$

Intercept: $\widehat{\beta}_0 = \bar{y} - \widehat{\beta}_1 \bar{x}$

(Country)	(PEDs)	(Fitted)	(Residuals)		
i	y_i	$\widehat{y}_i = \widehat{\beta}_0 + \widehat{\beta}_1 x_i$	$\widehat{u}_i = y_i - \widehat{y}_i$	$\widehat{u}_i^2 = (y_i - \widehat{y}_i)^2$	$(x_i - \bar{x}) \bullet u_i$
Australia	1.2	1.50	-0.30	0.09	-14.41
Canada	0.7	0.64	0.06	0.00	3.56
Colombia	2.5	3.27	-0.77	0.59	-13.11
Dominican	3.9	3.73	0.17	0.03	1.55
JapanTaiwan	1.6	1.21	0.39	0.15	20.42
Mexico	3.2	3.21	-0.01	0.00	-0.25
PuertoRico	2.4	2.76	-0.36	0.13	-9.28
USA	1.0	1.04	-0.04	0.00	-2.43
Venezuela	4.2	3.33	0.87	0.76	13.95
Σ				SSR = 1.75	
$\Sigma/(n-2)$				$\widehat{\sigma}^2 = 0.25$	

$$\widehat{\sigma} = 0.50$$

Standard error of slope: $se(\widehat{\beta}_1) = \sqrt{\frac{\widehat{\sigma}^2}{SST_x}} = \frac{\widehat{\sigma}}{\sqrt{n-1} \cdot s_x} =$

Standard error of intercept: $se(\widehat{\beta}_0) = \sqrt{\frac{\widehat{\sigma}^2}{SST_x}} \cdot \frac{\sum x_i^2}{n} =$