

1. Importación de gases en millones de dolares

Año	millones de Q	$(x - \bar{x})$	$(x - \bar{x})^2$
2011	12.97	1.03	1.06
2012	13.90	0.10	0.01
2013	14.67	0.67	0.45
2014	14.43	0.43	0.18
2015	14.05	0.05	0.00
	70.02	2.28	1.70

$\bar{x}$

$$\bar{x} = \frac{70.02}{5} = 14$$

D_m

$$D_m = \frac{2.28}{5} \quad D_m = 0.46$$

S

$$S = \sqrt{\frac{1.70}{5}} \quad S = \sqrt{0.34} \quad S = 0.58$$

R

$$R = 14.67 - 12.97 \quad R = 1.70$$

2. Volumen de importancias de Carne de pella en libras de Estados Unidos a Guatemala en los siguientes años

Año	Libras	$X - \bar{X}$	$(X - \bar{X})^2$
2011	162,812	64,109	4,109,451,025
2012	186,978	39,939	1,595,123,721
2013	195,335	31,582	997,422,724
2014	242,487	79,570	2,424,301,938
2015	277,390	50,473	2,547,540,890
2016	296,499	69,582	4,841,678,382
	1,361,501	271,252	14,333,646,936

$\bar{X}$

$$\bar{X} = 1,361,501$$

$$\bar{X} = 226,916.83$$

D_m

$$D_m = 271,252$$

$$D_m = 45,208.56$$

S

$$S = \sqrt{14,333,646,936}$$

$$S = \sqrt{2,388,941,186}$$

$$S = 48,876.80$$

$$R = 133,687$$

$$R = 296,499 - 162,812$$

3. Proyecto de crecimiento económico de un año (en porcentaje)

Pais	%	$ X - \bar{X} $	$(X - \bar{X})^2$
Guatemala	2.9	0.82	0.67
El Salvador	2.6	0.82	0.67
Honduras	3.1	0.22	0.05
Nicaragua	3	0.32	0.10
Costa Rica	3.4	0.08	0.01
Panamá	5.4	2.08	4.33
	19.90	4.34	5.83

$\bar{X}$

$$\bar{X} = \frac{19.90}{6}$$

$$\bar{X} = \frac{3.32}{6}$$

D_m

$$D_m = \frac{4.34}{6}$$

$$D_m = \frac{0.72}{6}$$

S

$$S = \sqrt{\frac{5.83}{6}}$$

$$S = \sqrt{0.97}$$

$$S = \frac{0.98}{2}$$

R

$$R = 5.4 - 2.S =$$

$$R = \frac{2.90}{2}$$