

1. Importancia de pesos en millones de dolares

Año	Millones de Q.	$ x - \bar{x} $	$(x - \bar{x})^2$
2011	12.97	1.03	1.061
2012	13.9	0.1	0.010
2013	14.67	0.67	0.449
2014	14.43	0.43	0.185
2015	14.05	0.05	0.0025
Σ	70.02	2.28	1.7075

$$\bar{x} = \frac{70.02}{5} = 14.00$$

$$DM = \frac{2.28}{5} = 0.46$$

$$S = \sqrt{\frac{\sum (x - \bar{x})^2}{N}}$$

$$S = \sqrt{\frac{1.7075}{5}}$$

$$S = \sqrt{0.3415}$$

$$S = 0.58$$

$$R = 14.67 - 12.97$$

$$1.7$$



$$\bar{x} = 14.00$$

$$DM = 0.46$$

$$S = 0.58$$

$$R = 1.7$$

2. proyección de crecimiento en porcentajes.
de en año con porcentajes.

País	%	$ x - \bar{x} $	$(x - \bar{x})^2$
Guatemala	2.5	0.80	0.64
El Salvador	2.5	0.80	0.64
Honduras	3.1	0.20	0.05
Nicaragua	3	0.30	0.10
Costa Rica	3.4	0.08	0.01
Panamá	5.4	2.08	4.33
	19.9	4.34	5.83

$$\bar{x} = \frac{\sum 19.9}{6}$$

$$\bar{x} = 3.32$$

$$DM = \frac{\sum 4.34}{6} = DM = 0.72$$

$$S = \sqrt{\frac{\sum 5.83}{6}} = S = \sqrt{0.97}$$

$$S = 0.98$$

$$R = 2.9$$

$$\bar{x} = 3.32$$

$$DM = 0.72$$

$$S = 0.98$$

$$R = 2.9$$

3. volumen de importación de carne de pollo en libras de estados unidos a Guatemala en los siguientes años.

Año	Libras	$(x - \bar{x})$	$(x - \bar{x})^2$
2,011	162,810	64,105	4,109,451,025.00
2,012	186,978	39,939	1,595,123,721.00
2,013	185,335	31,582	997,422,721.00
2,014	242,487	15,570	242,430,193.83
2,015	271,390	50,473	2,547,840,889.85
2,016	296,499	69,582	4,841,678,381.91

$$\Sigma = 1,361,501 \quad 271,252 \quad 14,333,646,936.$$

$$\bar{x} = \Sigma \frac{1,361,501}{6} \quad \bar{x} = 226,916.83$$

$$DM = \Sigma \frac{271,252}{6} \quad DM = 45,208.67$$

$$S = \sqrt{\Sigma \frac{14,333,646,936}{6}} \quad S = \sqrt{2,388,941,156}$$

$$S = 48,876.80$$

$$R = 133,687$$

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

$$DM = 45,208.67$$

$$S = 48,876.80$$

$$R = 133,687$$

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