

1 Importación de peras en millones de dólares.

Año	Millones de Quetzales	$ x - \bar{x} $	$(x - \bar{x})^2$
2,011	12.97	1.03	1.06
2,012	13.90	0.1	0.01
2,013	14.67	0.67	0.45
2,014	14.43	0.43	0.18
2,015	14.05	0.05	0.002

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

$$D.M. = \frac{\sum |x - \bar{x}|}{N} = \frac{2.28}{5} = 0.46 //$$

$$S = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = \sqrt{\frac{1.70}{5}} = \sqrt{0.34} = 0.58 //$$

$$R = D_{ma} - D_{me} = 14.67 - 12.97 = 1.70 //$$

2 Proyección de crecimiento económico de un año

País	%	$ x - \bar{x} $	$(x - \bar{x})^2$
Guatemala	2.5	0.81	0.66
El Salvador	2.5	0.81	0.66
Honduras	3.1	0.21	0.01
Nicaragua	3	0.31	0.10
Costa Rica	3.4	0.09	0.01
Panamá	5.4	2.09	4.37

$$\bar{x} = \frac{19.9}{6} = 3.31 //$$

$$DM = \frac{\sum |x - \bar{x}|}{N} = \frac{4.32}{6} = 0.72 //$$

$$S = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = \sqrt{\frac{5.84}{6}} = \sqrt{0.97} = 0.99 //$$

$$R = D_{ma} - D_{me} = 5.4 - 2.5 = 2.90 //$$

Jeremy

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	162,812	64,104.83	4,109,429,229
2,012	186,978	34,938.83	1,595,110,412
2,013	195,335	31,581.83	997,411,186,40
2,014	242,487	15,590.17	242,980,443,80
2,015	277,390	50,473.17	2,547,540,840
2,016	296,499	69,582.17	4,841,678,382

$$\bar{x} = 1,361,867 = 226,916.8 //$$

$$D_m = \frac{\sum |x - \bar{x}|}{N} = \frac{271,251}{6} = 45,208.50 //$$

$$S = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = \sqrt{\frac{14,283,600,022.90}{6}} = \sqrt{2,397,266,670.48}$$

$$S = 48,961.89 //$$

$$R = D_{ma} - D_{me} = 296,499 - 162,812$$

$$R = 133,687 //$$