

1. Importancia de peras en millones de dolares

Año	Millones de d.	$ x - \bar{x} $	$(x - \bar{x})^2$
2011	12.97	1.03	1.06
2012	13.9	0.1	0.01
2013	14.67	0.67	0.45
2014	14.43	0.43	0.18
2015	14.05	0.05	0.002

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

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

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

$$R = Dma - Dme = 14.67 - 12.97 = \underline{1.70}$$

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	0.04
Nicaragua	3	0.31	0.10
Costa Rica	3.4	0.09	0.01
Panamá	5.4	2.09	4.37

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

$$D.M. = \frac{\sum |x - \bar{x}|}{N} = \frac{4.32}{6} = \underline{0.72}$$

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

$$R = Dma - Dme = 5.4 - 2.5 = \underline{2.90}$$

3. y Volumen de importaciones de carne de pollo en libras de Estados Unidos a Guatemala en los siguientes años.

Año	Libras	$ x - \bar{x} $	$(x - \bar{x})^2$
2011	162,812	64,104,84	429,229
2012	186,978	34,938,81	1,595,110,142
2013	195,336	34,581,83	997,411,986,14
2014	242,487	15,570,47	243,430,193,80
2015	277,390	50,473,17	2,597,540,890
2016	296,499	67,582,17	4,841,470,382

$$\bar{x} = \frac{1,367,501}{6} = \underline{226,916.8} //$$

$$D.m. = \frac{\sum |x - \bar{x}|}{N} = \frac{271,251}{6} = \underline{45,208.50} //$$

$$S = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = \sqrt{\frac{14,283,600,022.00}{6}} = \sqrt{2,397,266,670.33}$$

$$S = \underline{48,961.89} //$$

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

$$R = \underline{133,687} //$$