

Activity 2. Day 1 Example

Year	Value (x)	$x - \bar{x}$	$(x - \bar{x})^2$
2011	12.97	1.63	1.06
2012	13.90	0.1	0.01
2013	14.67	0.47	0.45
2014	14.43	0.43	0.18
2015	14.05	0.05	0.00
	70.02	2.28	1.7

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

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

$$S = \sqrt{\frac{1.70}{5}}$$

$$S = \sqrt{0.34}$$

$$S = 0.58$$

$$R = 14.67 - 12.97 = 1.70$$

2) Proyección de crecimiento económico de un año con porcentajes

País	%	$x - \bar{x}$	$(x - \bar{x})^2$
Guatemala	2.5	0.82	0.67
El Salvador	2.5	0.82	0.67
Honduras	3.1	0.22	0.65
Nicaragua	3.0	0.32	0.10
Costa Rica	3.4	0.08	0.01
Panamá	5.4	2.08	4.33
	19.9	4.34	5.83

$$\bar{X} = \frac{19.9}{4} = 3.32$$

$$DM = \frac{4.34}{4} = 0.72$$

$$S = \sqrt{\frac{5.83}{4}}$$

$$S = \sqrt{0.97}$$

$$S = 0.98$$

$$R = 5.4 - 2.6 = 2.9$$

3. Volumen de importación de carne de pollo en años de 2011 a 2016 (miles de toneladas)

Año	x	$x - \bar{x}$	$(x - \bar{x})^2$
2011	142,812	44,705	4,109,451,025
2012	186,978	39,939	1,595,123,721
2013	196,335	31,582	997,422,724
2014	242,487	16,570	242,424,900
2015	277,390	50,473	2,547,523,729
2016	296,499	69,582	4,841,154,174
	<u>1,347,501</u>	<u>271,251</u>	<u>1433,360,882</u>

$$\bar{x} = \frac{1,347,501}{6} = 224,916,833 = 224,917$$

$$DM = \frac{271,251}{6} = 45,208,5$$

$$s = \sqrt{\frac{1,433,360,882}{6}} = \sqrt{238,893,347}$$

$$s = 15,456,18$$

$$R = 296,499 - 162,812 = 133,687$$