



**ESCUELA: UNIVERSIDAD DEL SURESTE**

**ALUMNO: GRISLY MARBEY LÓPEZ FIGUEROA**

**CARRERA: ADMINISTRACIÓN DE EMPRESAS**

**MATERIA: ESTADÍSTICA DESCRIPTIVA.**

**CUATRIMESTRE: 3RO      GRUPO: A**

**NOMBRE DEL CATEDRÁTICO: JORGE ENRIQUE  
ALBORES AGUILAR.**

**LUGAR: COMITÁN DE DOMÍNGUEZ**

**FECHA ENTREGA: 30/MAYO/2020**

# ESTADÍSTICA

Los 40 alumnos de una clase han obtenido las siguientes puntuaciones sobre 50 en un examen de física. → 32, 35, 28, 38, 44, 48, 15, 32, 3, 15, 24, 28, 33, 35, 38, 42, 23, 38, 36, 34, 29, 25, 17, 7, 34, 36, 39, 44, 31, 26, 20, 11, 13, 22, 27, 47, 39, 37, 34, 13.

DATOS	$F_i$	$F_a$	MC	$F_i \cdot MC$	$F_r$	$F\%$
[0-10]	2	2	5	10	0.05	5%
[10-20]	7	9	15	105	0.175	17.5%
[20-30]	9	18	25	225	0.225	22.5%
[30-40]	17	35	35	595	0.425	42.5%
[40-50]	5	40	45	225	0.125	12.5%

$n = 40$

$$\frac{F_i}{n} \quad \frac{F_i}{n} \cdot 100$$

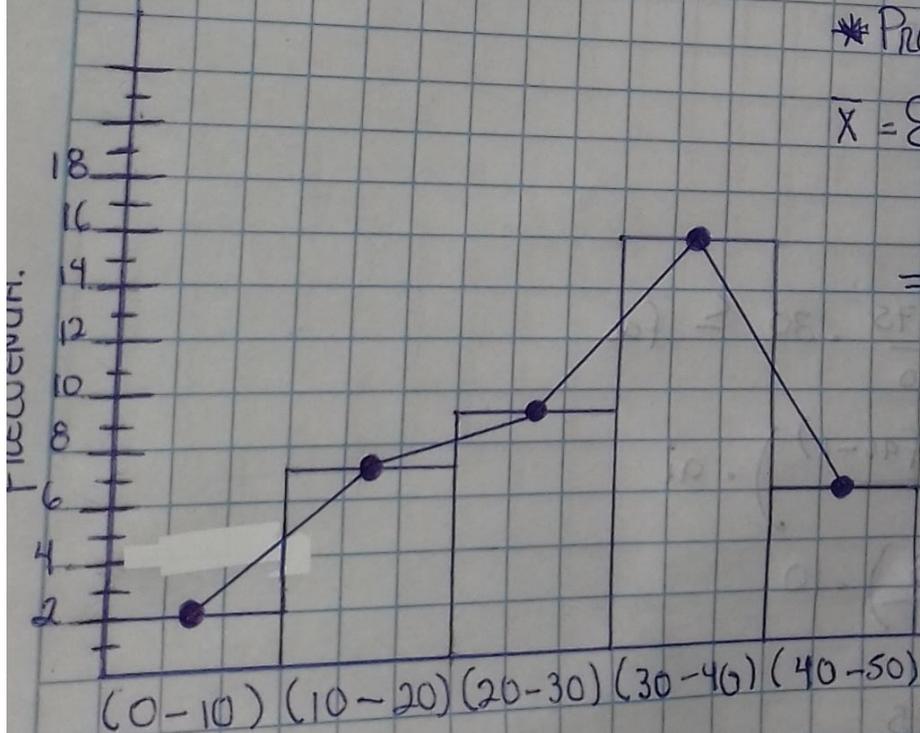
## \* PROMEDIO ( $\bar{x}$ )

$$\bar{x} = \frac{\sum MC \cdot f_i}{n} = \frac{10 + 105 + 225 + 595 + 225}{40} = \frac{1160}{40} = 29$$

## \* MODA ( $M_o$ )

$$Li + \left( \frac{f_i}{f_{i-1} + f_{i+1}} \right) \cdot ai$$

$$M_o = 30 + \left( \frac{5}{9+5} \right) \cdot 10 = 33,57$$



### \* MEDIANA (M)

$$fac \geq \frac{N}{2}$$

$$Li + \left( \frac{\frac{N}{2} - (fac - 1)}{f_i} \right) \cdot a_i$$

$$fac \geq 20$$

$$M = 30 + \left( \frac{20 - 18}{17} \right) \cdot 10 = 31,17$$

### \* PERCENTIL

$$P_{40} = \frac{n \cdot 40}{100} = \frac{40 \cdot 40}{100} = 28 \leq fac$$

$$= Li + \left( \frac{\frac{Xn}{100} - (fac - 1)}{f_i} \right) \cdot a_i$$

$$30 + \left( \frac{28 - 18}{17} \right) \cdot 10$$

$$P_{40} = 35,88$$

### \* TERCEER COARTIL

$$Q_3 = \frac{N \cdot 75}{100} = \frac{40 \cdot 75}{100} = 30 \leq fac$$

$$Q_3 = Li + \left( \frac{Q_3 - (fac - 1)}{f_i} \right) \cdot a_i$$

$$30 + \left( \frac{30 - 18}{17} \right) \cdot 10$$

$$Q_3 = 37,05$$