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Ejercicio 1

- Tabla de datos ordenados

34	35	35	35	35	35	35	35	35	35	35	35	40
40	44	44	44	44	44	54	55	55	57	60	66	66
66	70	76	76	77	78	78	80	80	82	85	86	86
87	87	88	89	90	94							

- Datos $n=42$

$$\sum F_i = 34 + 35 \times 10 + 40 \times 2 + 44 \times 5 + 54 + 55 \times 2 + 57 + 60 + 66 \times 2 + 70 + 76 \times 2$$

$$= + 77 + 78 \times 2 + 80 \times 2 + 82 + 85 + 86 + 87 \times 2 + 89 + 90 + 94$$

$$\sum F_i = 34 + 350 + 80 + 220 + 54 + 110 + 57 + 60 + 132 + 70 + 152 + 77 + 156$$

$$+ 160 + 82 + 85 + 86 + 174 + 88 + 89 + 90 + 94$$

$$\sum = 2500$$

$$\text{Medio } x = \frac{\sum F_i}{n} = \frac{2500}{42} = 59.52$$

Mediana =

$$Me = \frac{n}{2} = \frac{42}{2} = 21 \quad \frac{n}{2} + 1 = 21 + 1 = 22$$

Posición 21 y 22

Dato 21 = 55

Dato 22 = 57

$$\frac{55 + 57}{2} = \frac{112}{2} = 56$$

$$Me = 56$$

Moda

10 veces se repite 56

$$Mo = 56$$

Varianza

$$\sum F_i^2 = 34^2 + 35^2 \times 10 + 40^2 \times 2 + 44^2 \times 5 + 54^2 + 55^2 \times 2 + 57^2 + 60^2 + 66^2 \times 2 + 70^2 + 76^2 \times 2$$

$$= 77^2 + 78^2 \times 2 + 80^2 \times 2 + 82^2 + 85^2 + 86^2 + 87^2 \times 2 + 89^2 + 90^2 + 94^2$$

$$\sum F_i^2 = 1156 + 12250 + 3200 + 9680 + 2916 + 6050 + 3249 + 3600 + 8712 + 4900$$

$$+ 11552 + 5929 + 12168 + 12800 + 6724 + 7225 + 7396 + 15138 + 7744$$

$$7921 + 8100 + 8036$$

Scribe

$$EF^2 = 167246$$

$$S^2 = \frac{EF^2 - (EF)^2}{n}$$

$$167246 - \frac{(2500)^2}{42}$$

$$167246 - \frac{6250000}{42}$$

n

42

41

n-1

42-1

$$S^2 = \frac{167246 - 148809.52}{41}$$

$$= \frac{18436.48}{41}$$

$$= 449.67$$

- Desviación Estándar

$$S = \sqrt{449.67} = 21.2054 = 21.21$$

Ejercicio 2

- Tabla de Frecuencia

Fila	Dato	Frecuencia absoluta	Frecuencia acumulada	Porcentaje	Grados	Color
1	5	3	3	8.33%	30°	Yellow
2	6	1	4	2.78%	10°	Light Green
3	7	4	8	11.11%	40°	Orange
4	8	4	12	11.11%	40°	Purple
5	9	0	12	0%	0	
6	10	6	18	16.66%	60°	Pink
7	11	3	21	8.33%	30°	Red
8	12	5	26	13.89%	50°	Blue
9	13	2	28	5.56%	20°	Light Blue
10	14	3	31	8.33%	30°	Green
11	15	5	36	13.99%	50°	Brown
Total		36		100%	360°	

Aplicando Regla de tres para Porcentaje y grados

$$5 = \frac{(3)(100\%)}{36} = 8.33$$

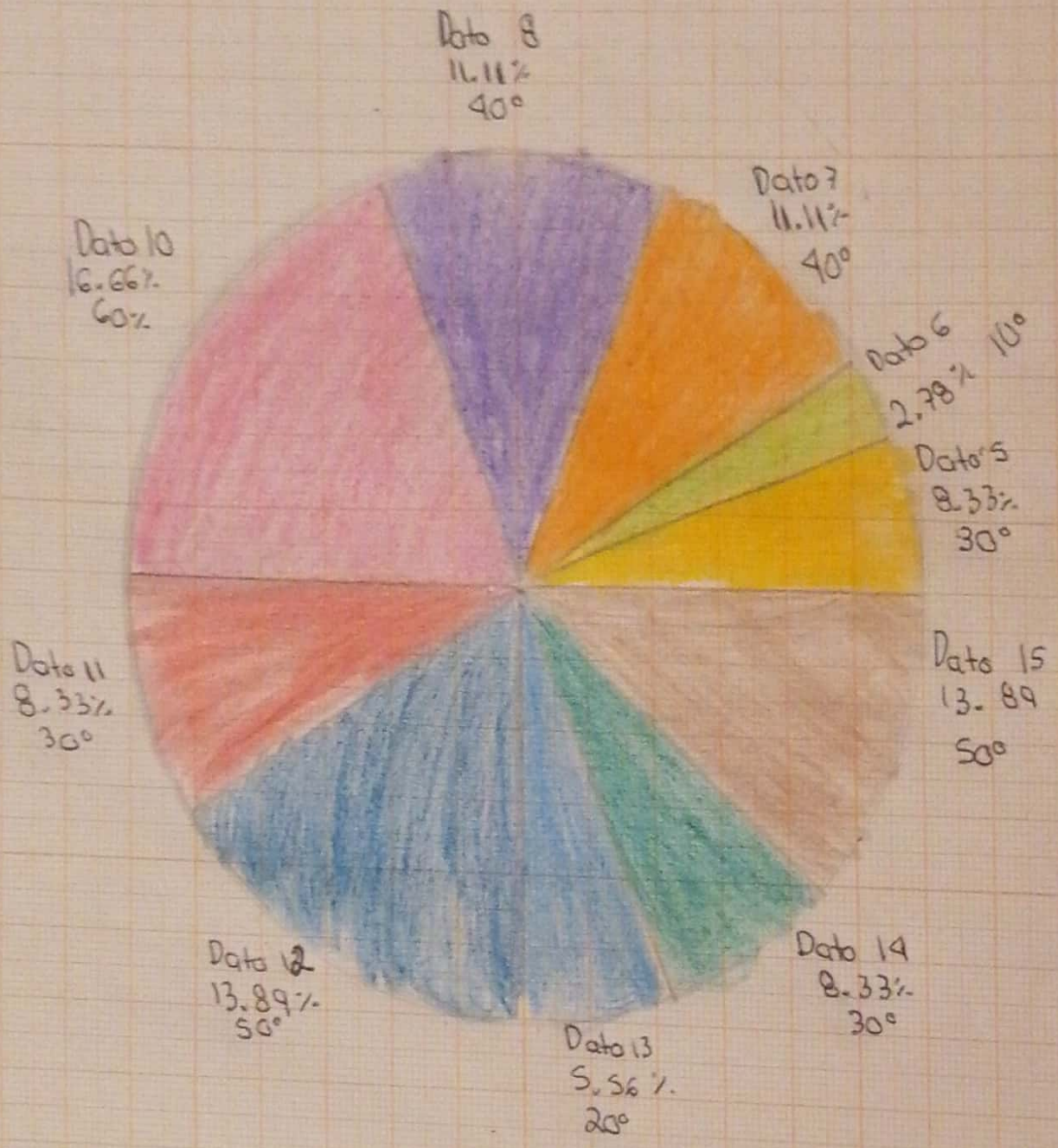
$$8 = \frac{(5)(100\%)}{36} = 13.8889$$

$$3 = \frac{(9)(360^\circ)}{36} = 10$$

$$3 = \frac{(4)(100\%)}{36} = 11.11$$

$$5 = \frac{(3)(360^\circ)}{36} = 30^\circ$$

$$8 = \frac{(5)(400\%)}{36} = 40$$



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