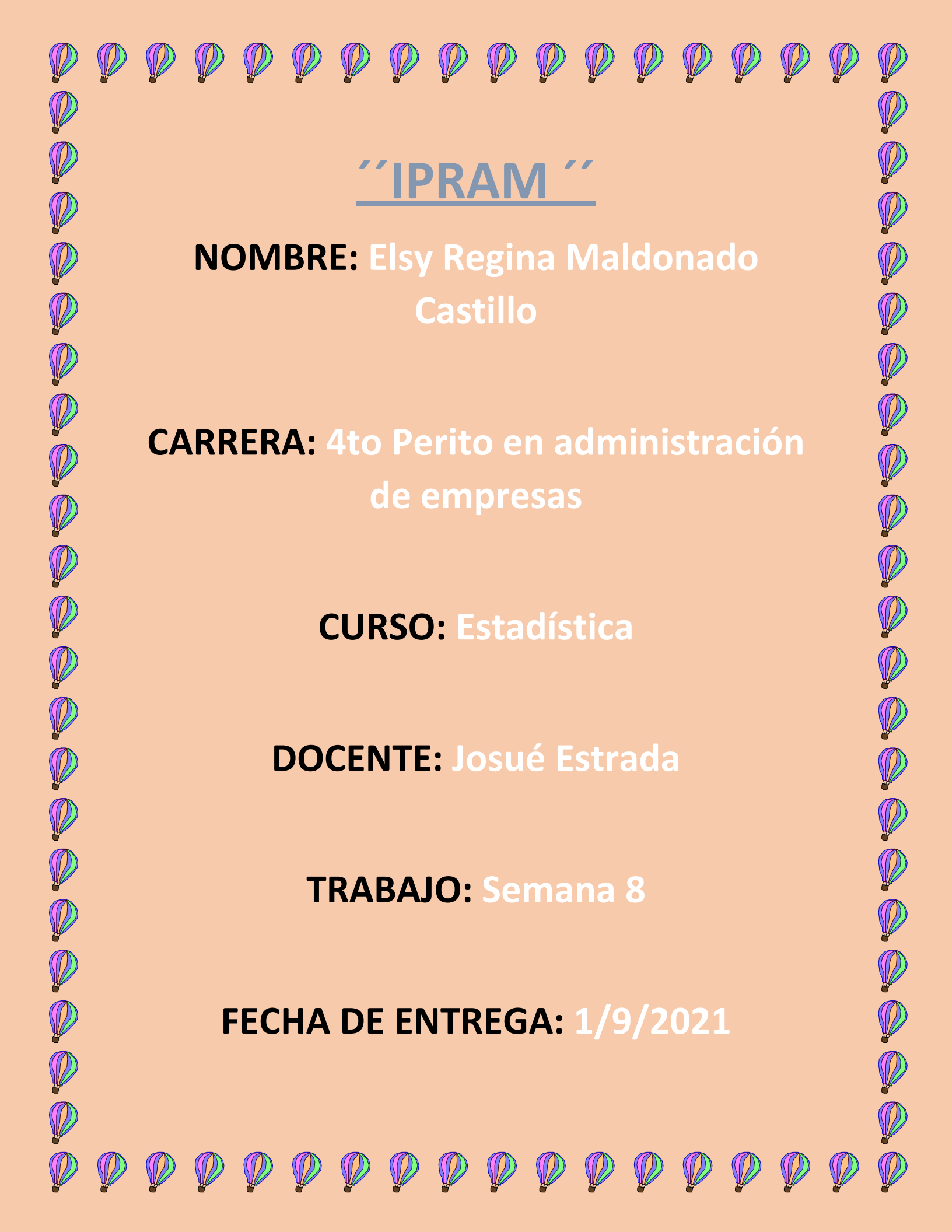


A decorative border of colorful hot air balloons (purple, green, and yellow) surrounds the entire page. The balloons are arranged in a rectangular frame, with some balloons also placed along the top and bottom edges.

“IPRAM”

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CURSO: Estadística

DOCENTE: Josué Estrada

TRABAJO: Semana 8

FECHA DE ENTREGA: 1/9/2021

"Semana 8"

1. Ordene datos

49 - 55 - 65 - 66 - 66 - 70 - 72
72 - 72 - 74 - 75 - 75 - 76 - 76
77 - 78 - 79 - 80 - 81 - 81 - 81
81 - 83 - 84 - 90

2. Calcule K

$$K = 1 + 3322$$

$$K = 1 + 3322$$

$$K = 1 + 3322$$

$$K = 1 + 464$$

$$K = 5.64$$

3. Calcule R

$$90 - 49 = 41$$

$$41 + 1 = 42$$

4. Calcule I

$$K = 5.64 = 9) 7.45 \quad r = 7$$
$$R = 42$$

Intervalo	Lri	Lrs	Xs	F	fa	fxs
49 -	55	48.5	55.5	52	23	104
56 -	62	55.5	62.5	59	02	0
63 -	69	62.5	69.5	66	35	198
70 -	76	69.5	76.5	73	91	4657
77 -	83	76.5	83.5	80	92	3720
84 -	90	83.5	90.5	87	22	5174
= 1853						

$$\bar{x} = \frac{\sum f x_s}{N} \quad \bar{x} = \frac{1853}{25} = 74.12$$

$$Md = Lri + \left(\frac{\frac{N}{2} - faa}{F} \right) \cdot 7$$

$$Md = 69.5 + \left(\frac{12.5 - 5}{9} \right) \cdot 7$$

$$Md = 69.5 + \left(\frac{7.5}{9} \right) 7$$

$$Md = 69.5 + (0.83) 7$$

$$Md = 69.5 + 5.81$$

$$Md = 75.31$$

$$Mo = Lr + \left(\frac{\Delta_1}{\Delta_1 + \Delta_2} \right) i \quad \begin{array}{l} \Delta_1 = 9 - 3 = 6 \\ \Delta_2 = 9 - 9 = 0 \end{array}$$

$$Mo = 69.5 + \left(\frac{6}{6+0} \right) 7 = 76.5$$

6. Calcule Cuartiles 1, 2 y 3

$$Q1 = 69.5 + \left(\frac{6.25 - 5}{9} \right) 7$$

$$Q1 = 69.5 + \left(\frac{1.25}{9} \right) 7$$

$$Q1 = 69.5 + (0.14) 7$$

$$Q1 = 69.5 + 0.98$$

$$Q1 = 70.48$$

$$Q2 = 69.5 + \left(\frac{12.5 - 5}{9} \right) 7$$

$$Q2 = 69.5 + \left(\frac{7.5}{9} \right) 7$$

$$Q2 = 69.5 + (0.83) 7$$

$$Q2 = 69.5 + 5.81$$

$$Q2 = 75.31$$

$$Q3 = 69.5 + \left(\frac{12.75 - 5}{9} \right) 7$$

$$Q3 = 69.5 + \left(\frac{13.75}{9} \right) 7$$

$$Q3 = 69.5 + (1.53) 7$$

$$Q3 = 69.5 + 10.71$$

$$Q3 = 80.21$$

7 Calcule deciles 2,6 y 9

$$\frac{25}{10} \times 2 = 5$$

$$D2 = 62.5 + \left(\frac{5 - 2}{3} \right) 7$$

$$D2 = 62.5 + \left(\frac{3}{3} \right) 7$$

$$D2 = 62.5 + (1) 7$$

$$D2 = 62.5 + 7$$

$$D2 = 69.5$$

$$D6 = 76.5 + \left(\frac{15-14}{9} \right) 7$$

$$D6 = 76.5 + \left(\frac{1}{9} \right) 7$$

$$D6 = 76.5 + (0.11) 7$$

$$D6 = 76.5 + 0.77$$

$$D6 = 77.27$$

$$D9 = 76.5 + \left(\frac{22.5 - 14}{9} \right) 7$$

$$D9 = 76.5 + \left(\frac{8.5}{9} \right) 7$$

$$D9 = 76.5 + (0.94) 7$$

$$D9 = 76.5 + 6.58$$

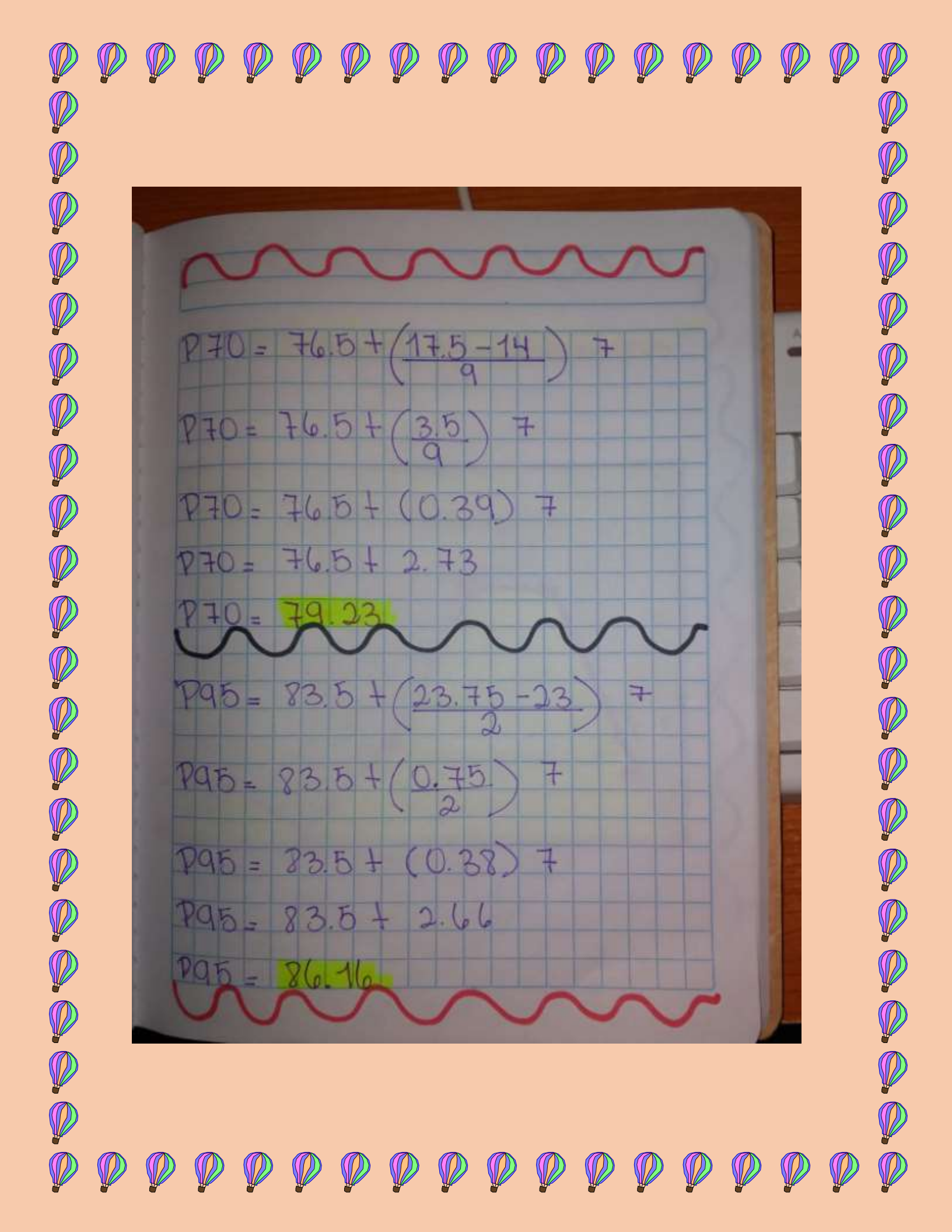
$$D9 = 83.08$$

$$P15 = 62.5 + \left(\frac{3.75 - 2}{3} \right) 7 \quad \frac{25}{100} \times \frac{15}{375}$$

$$P15 = 62.5 + \left(\frac{1.75}{3} \right) 7$$

$$P15 = 62.5 + (0.58) 7$$

$$P15 = 62.5 + 4.06 \quad P15 = 66.56$$


$$P70 = 76.5 + \left(\frac{17.5 - 14}{9} \right) 7$$

$$P70 = 76.5 + \left(\frac{3.5}{9} \right) 7$$

$$P70 = 76.5 + (0.39) 7$$

$$P70 = 76.5 + 2.73$$

$$P70 = 79.23$$

$$P95 = 83.5 + \left(\frac{23.75 - 23}{2} \right) 7$$

$$P95 = 83.5 + \left(\frac{0.75}{2} \right) 7$$

$$P95 = 83.5 + (0.38) 7$$

$$P95 = 83.5 + 2.66$$

$$P95 = 86.16$$

"Polígono de frecuencias"

