TRABAJO 2
TEOREMA CENTRAL DEL LIMITE
PRUEBAS DE NORMALIDAD

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Estadística
Simulación Estadística

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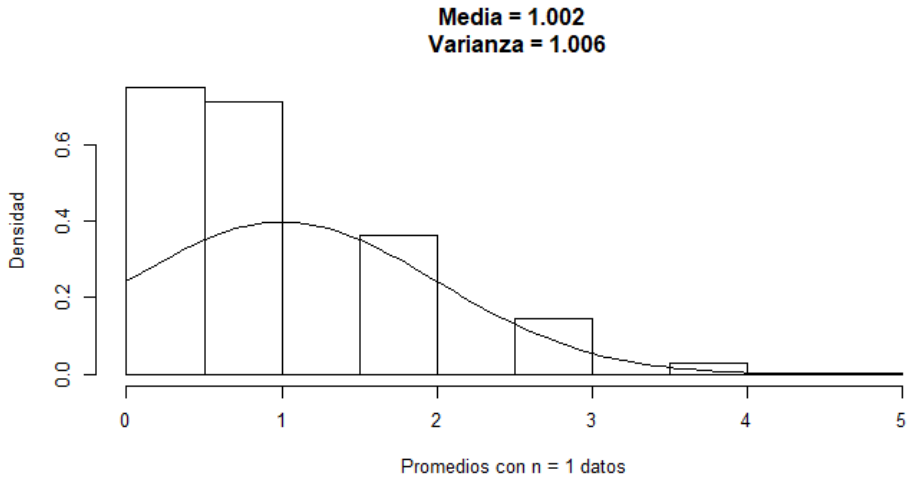
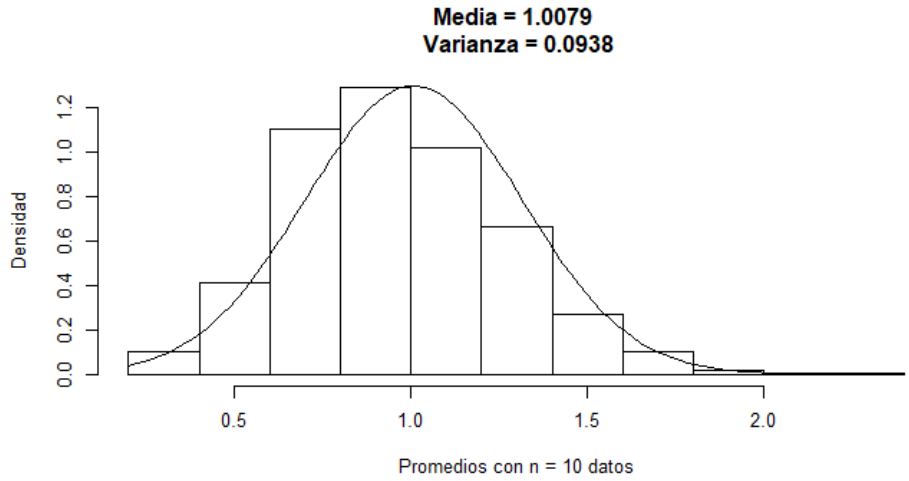
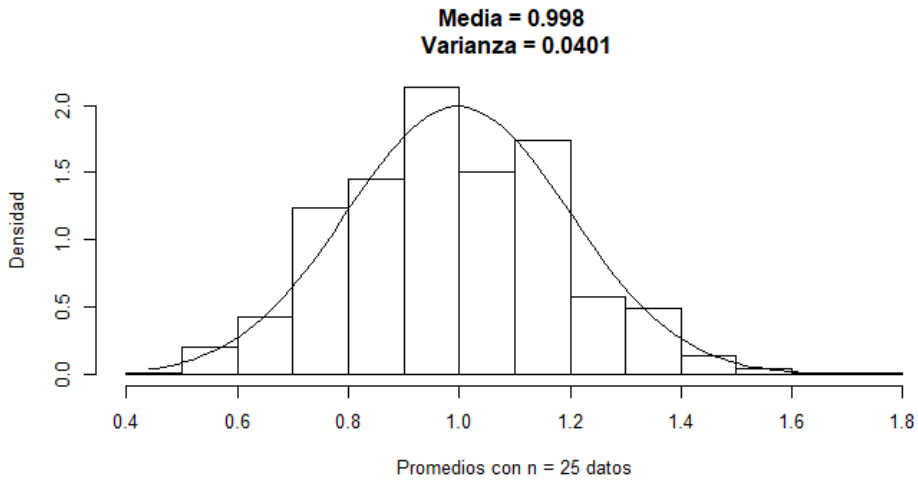
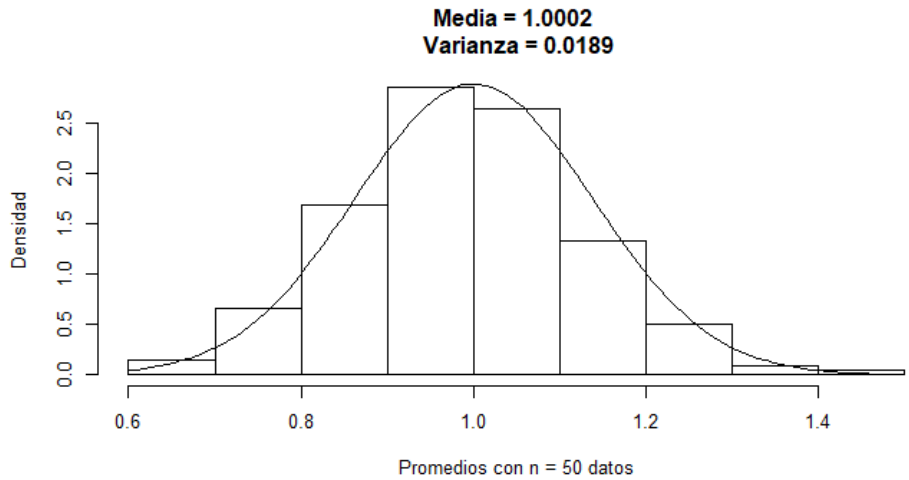
Simulación distribución Poisson($\lambda = 1$)

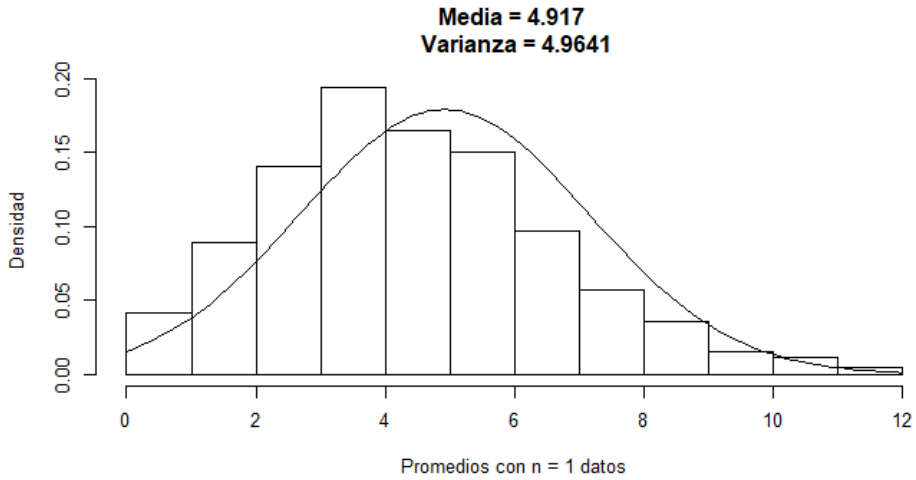


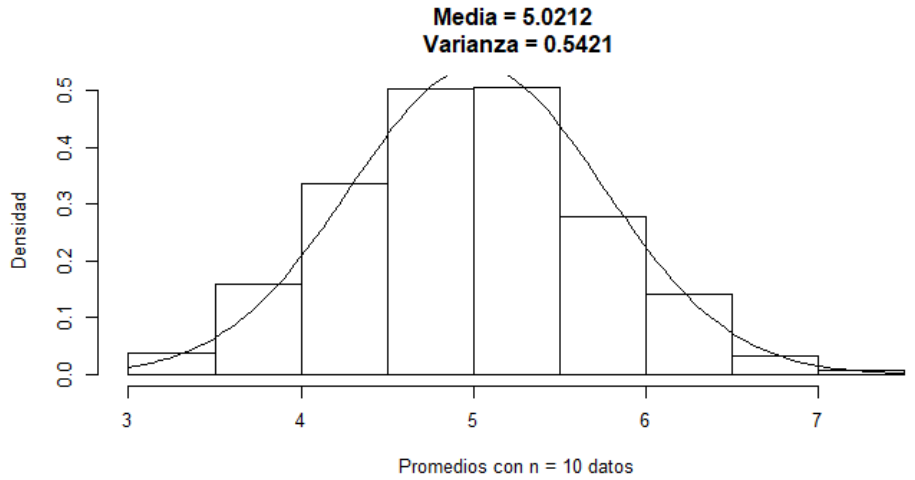


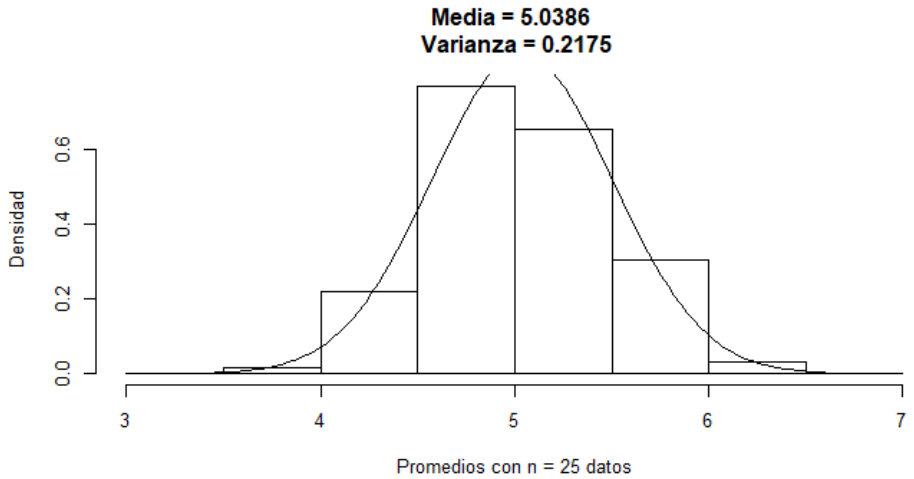


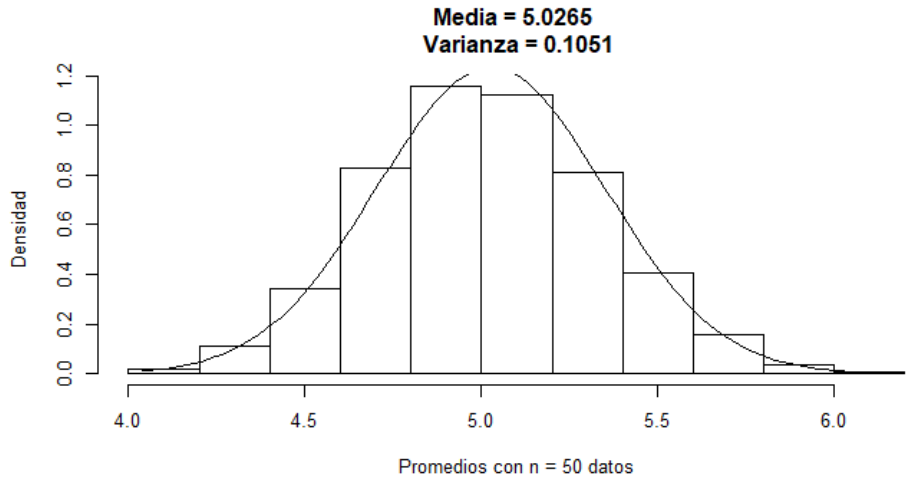


Simulación distribución Poisson($\lambda = 5$)

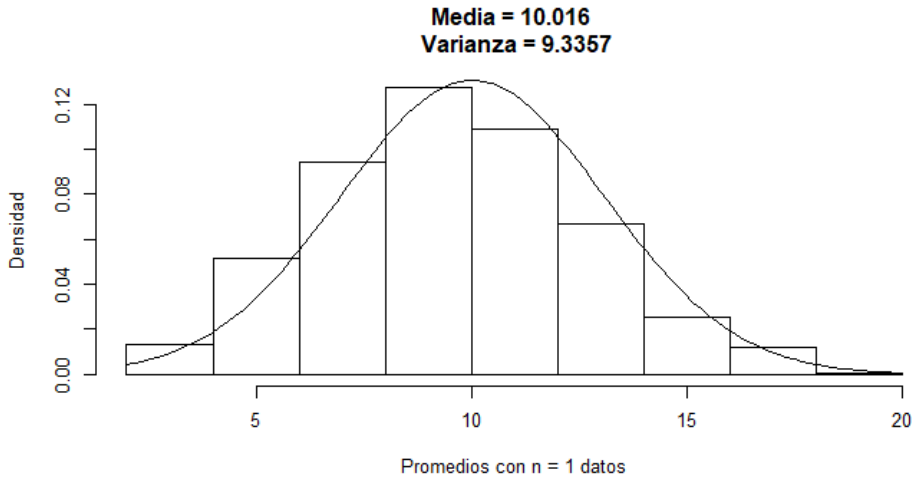


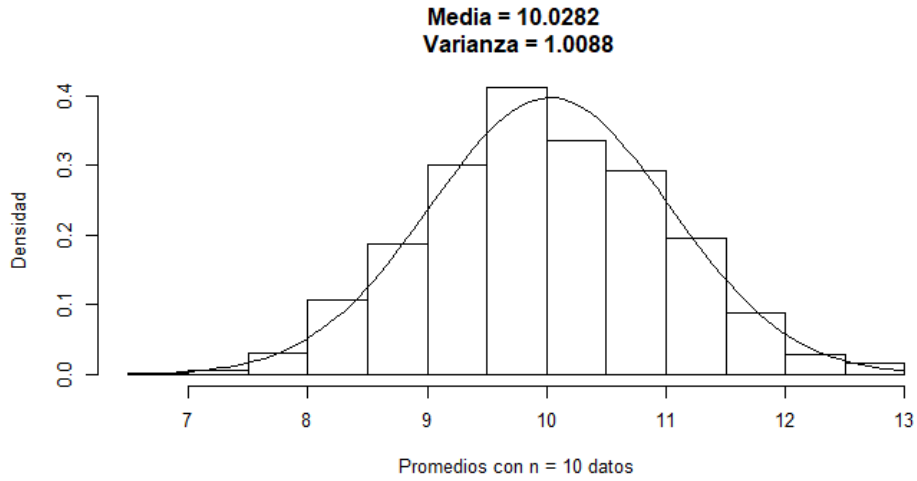


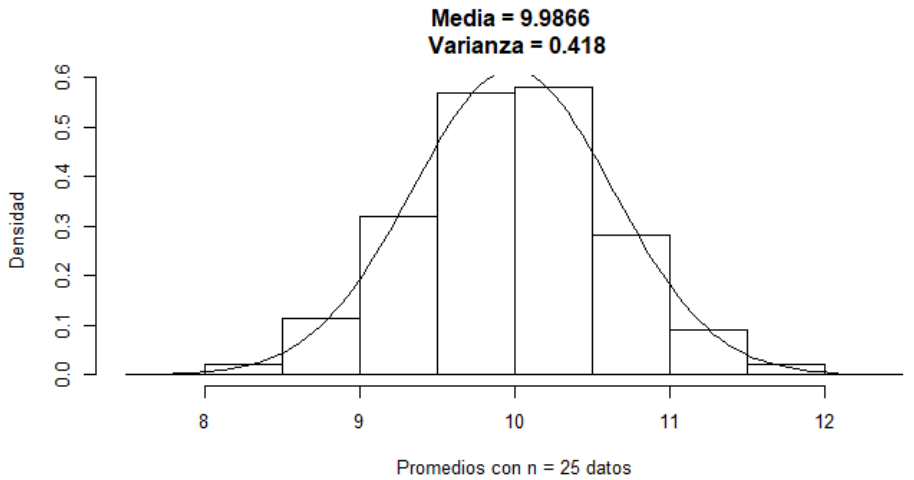


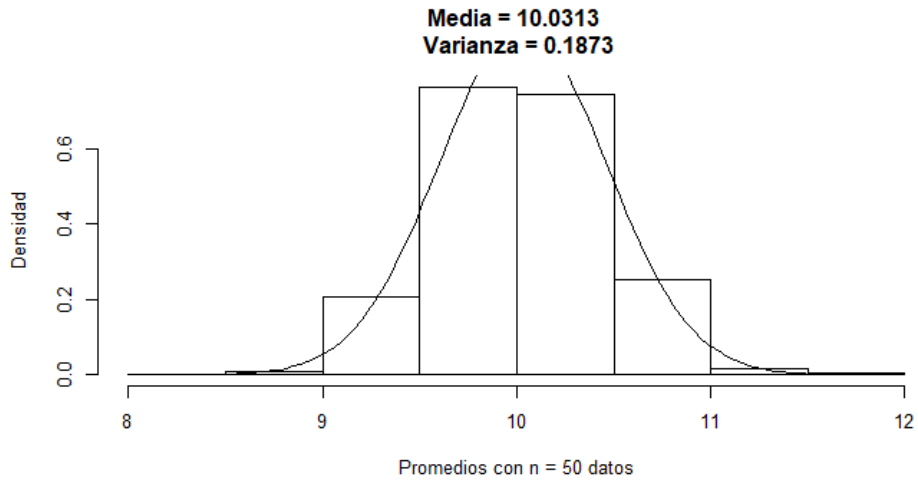


Simulación distribución Poisson($\lambda = 10$)

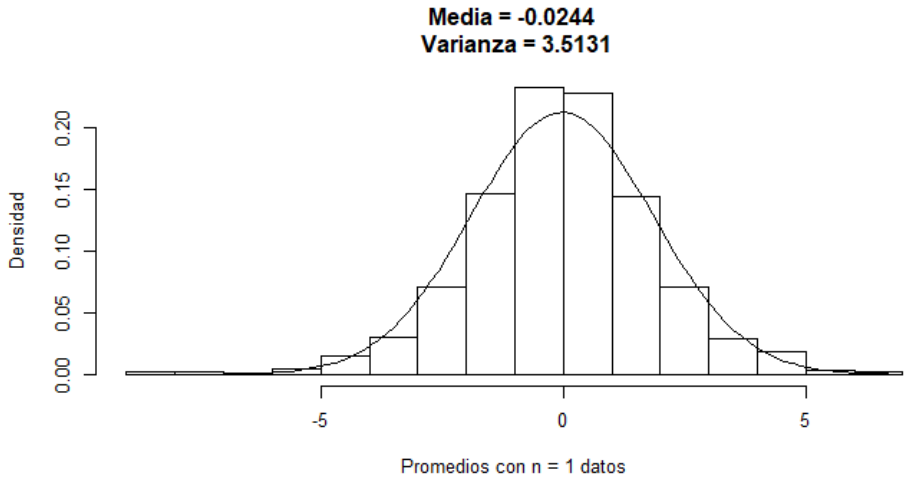


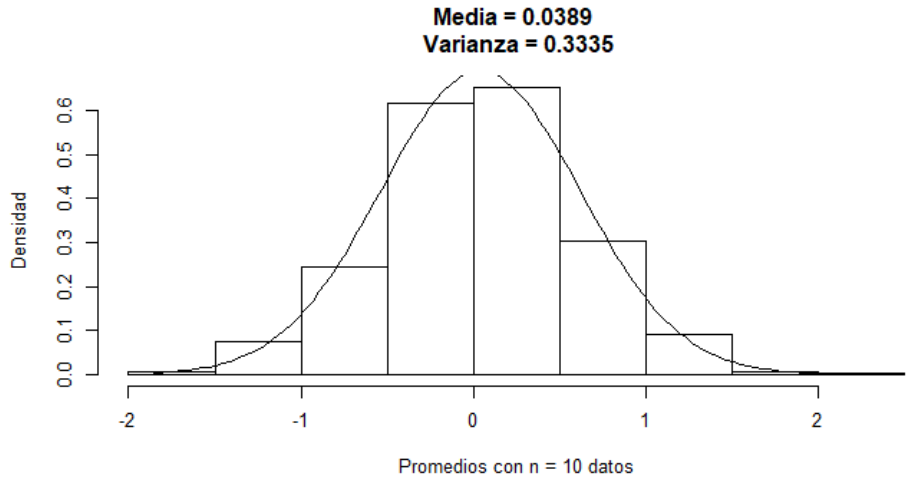


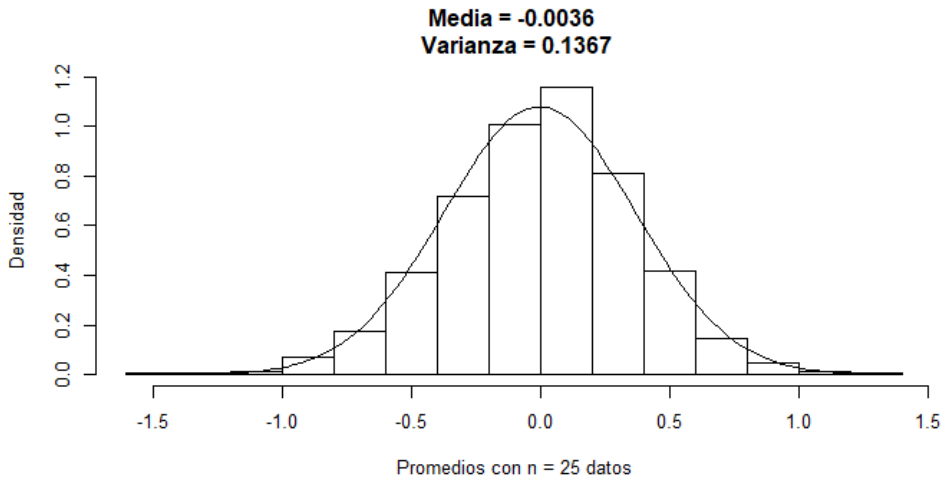


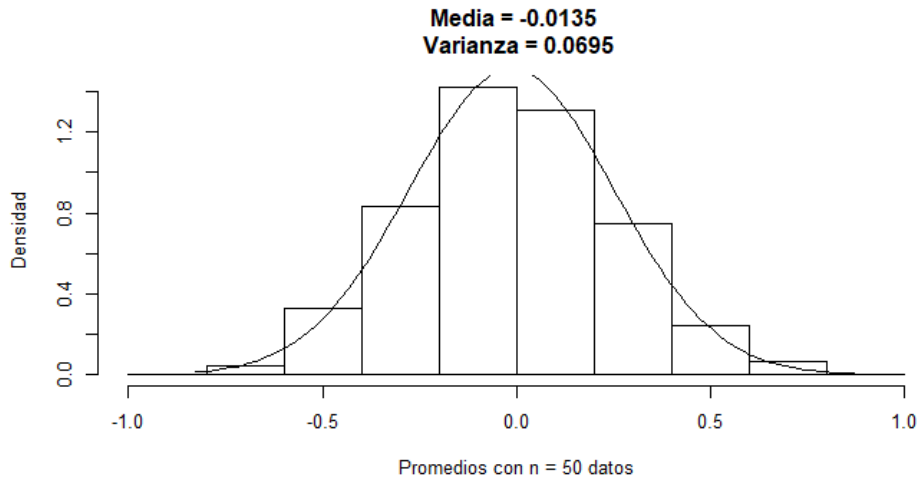


Simulación distribución Logística($\alpha = 0, \beta = 1$)

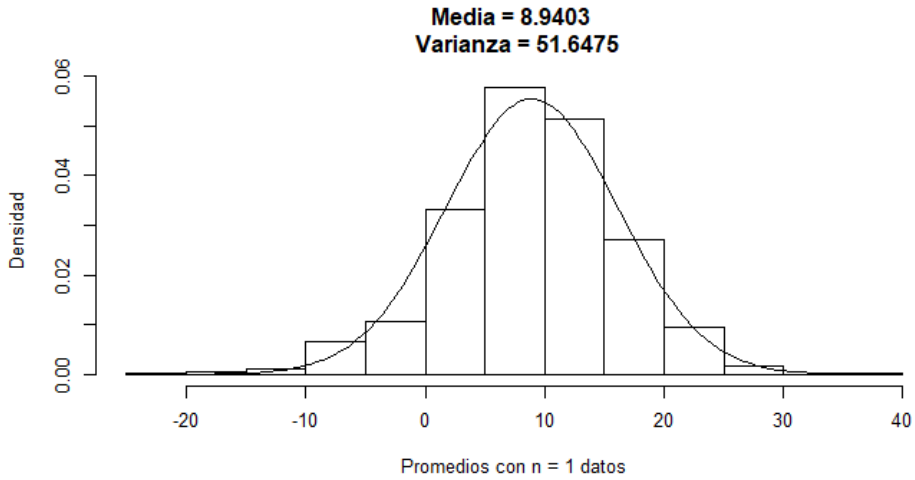


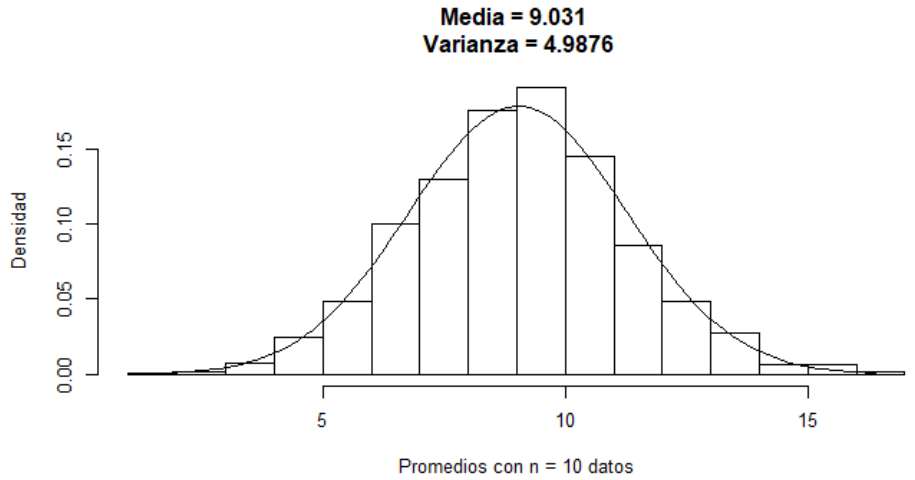


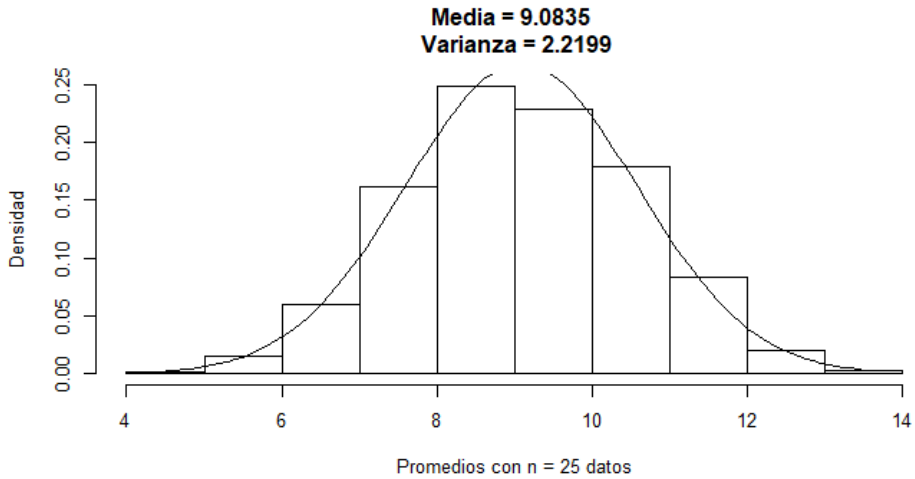


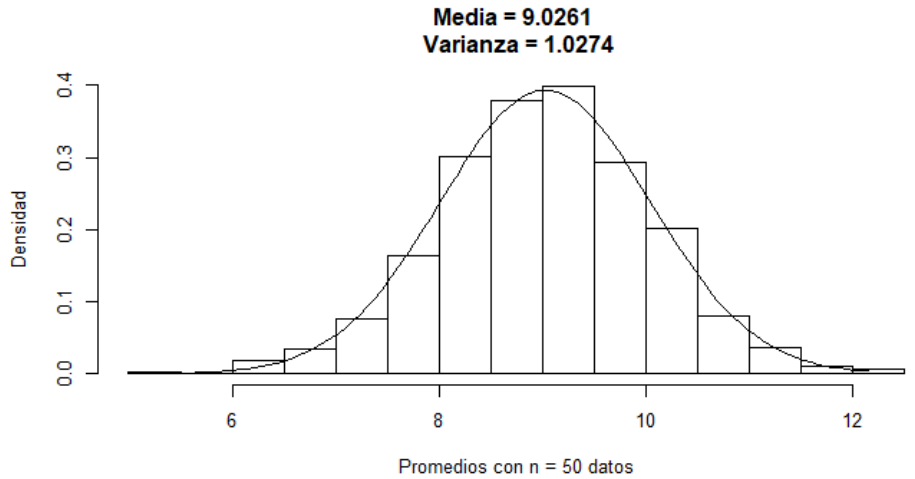


Simulación distribución Logística($\alpha = 9, \beta = 4$)

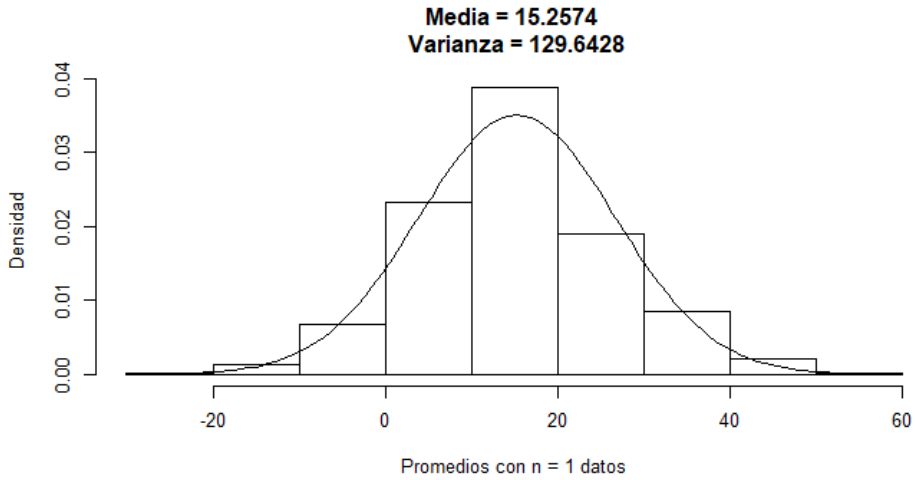


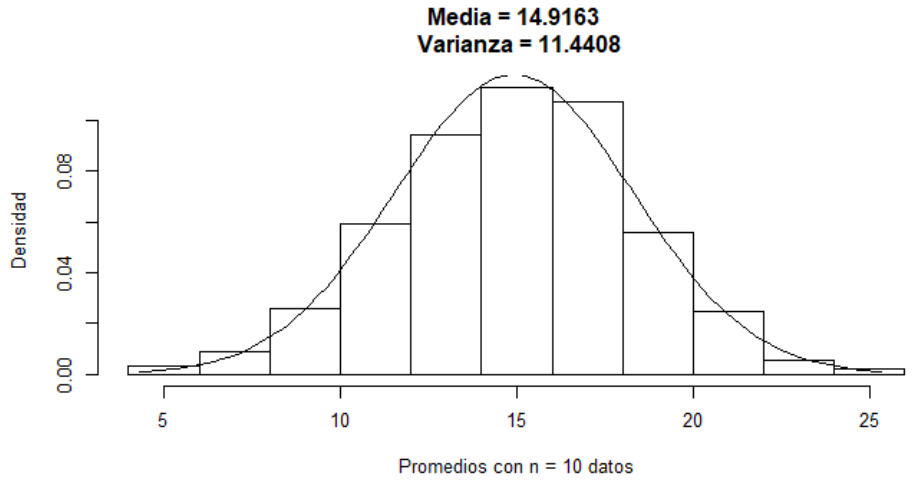


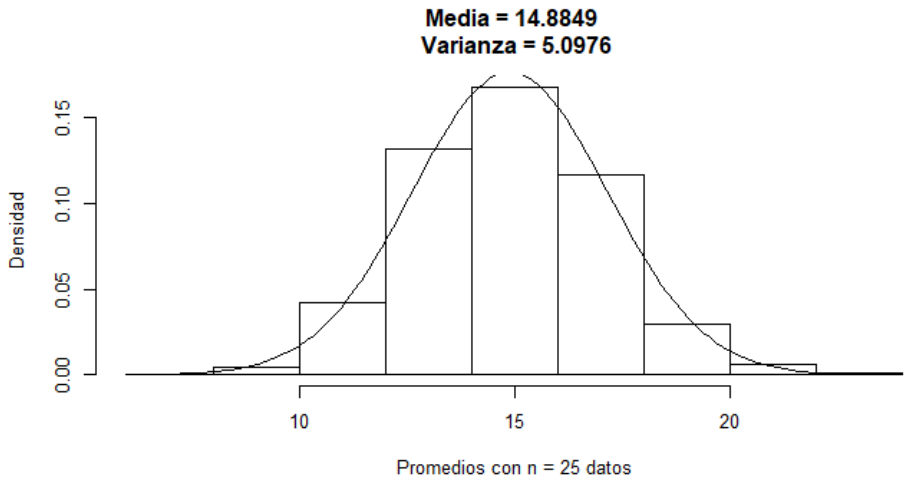


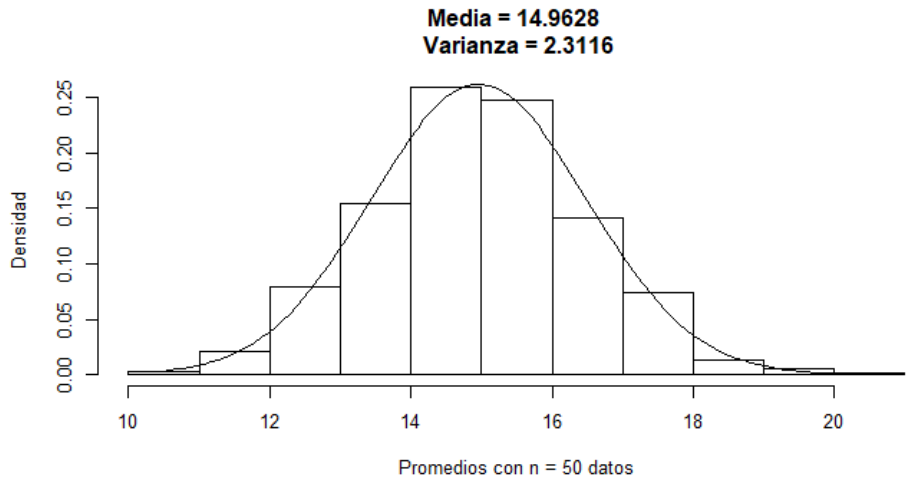


Simulación distribución Logística($\alpha = 15, \beta = 6$)









Estadistico de prueba Cramér-Von Mises

Distribuciones para los cuales esta prueba plantea las hipotesis:

$$H_0 : f(x, \theta) = f_0(x, \theta)$$

$$H_1 : f(x, \theta) \neq f_0(x, \theta)$$

Se tiene como estadístico de prueba a:

$$W = \frac{1}{12n} + \sum_{i=1}^{N} [P_i - \frac{2_i - 1}{2n}]$$

Resultados prueba de Cramér-Von Mises para la distribución Poisson

	n=1		n=5		n=10		n=30	
Parámetro	W	P-Valor	W	P-Valor	W	P-Valor	W	P-valor
λ=1	413.11	0.09893	684.06	0.1594	773.64	0.1755	867.2	0.1907
λ=5	1574.2	0.2727	1665.3	0.2805	1666.5	0.2806	1666.6	0.2806
λ=10	1665.5	0.2805	1666.7	0.2806	1666.7	0.2806	1666.7	0.2806

Figura: Comparación resultados prueba de Cramér-Von Mises

Resultados prueba de Cramér-Von Mises para la distribución Logística

	n=1		n=10		n=25		n=50	
Parámetro	W	P-Valor	W	P-Valor	W	P-Valor	W	P-valor
α=0,β=1	34.305	0.00003161	44.849	0.0002001	123.58	0.01235	186.76	0.03106
α=9,β=4	1119.3	0.2254	1664.4	0.2805	1666.7	0.2806	1666.7	0.2806
α=15,β=6	1254.3	0.2411	1666.6	0.2806	1666.7	0.2806	1666.7	0.2806

Figura: Comparación resultados prueba de Cramér-Von Mises