TABLA A.18. Valores críticos del test de Kolmogorov-Smirnov para dos muestras de distinto tamaño $n_1 \neq n_2$

Esta tabla contiene los valores críticos $D_{n_1, n_2; \alpha}$ del test de Kolmogorov-Smirnov[1]

$$D_{n_1, n_2} = \max_x |F_{n_1}(x) - G_{n_2}(x)|$$

$$P[D_{n_1, n_2} > D_{n_1, n_2}] = \alpha$$

$$N_1 = \min(n_1, n_2) \quad , \quad N_2 = \max(n_1, n_2)$$

Test unilateral / Test bilateral		Nivel de significación α α=0,10 / α=0,20	0,05 / 0,10	0,025 / 0,05	0,01 / 0,02	0,005 / 0,01
$N_1 = 1$	$N_2 =$ 9	17/18				
	10	9/10				
$N_1 = 2$	$N_2 =$ 3	5/6				
	4	3/4				
	5	4/5	4/5			
	6	5/6	5/6			
	7	5/7	6/7			
	8	3/4	7/8	7/8		
	9	7/9	8/9	8/9		
	10	7/10	4/5	9/10		
$N_1 = 3$	$N_2 =$ 4	3/4	3/4			
	5	2/3	4/5	4/5		
	6	2/3	2/3	5/6		
	7	2/3	5/7	6/7	6/7	
	8	5/8	3/4	3/4	7/8	
	9	2/3	2/3	7/9	8/9	8/9
	10	3/5	7/10	4/5	9/10	9/10
	12	7/12	2/3	3/4	5/6	11/12
$N_1 = 4$	$N_2 =$ 5	3/5	3/4	4/5	4/5	
	6	7/12	2/3	3/4	5/6	5/6
	7	17/28	5/7	3/4	6/7	6/7
	8	5/8	5/8	3/4	7/8	7/8
	9	5/9	2/3	3/4	7/9	8/9
	10	11/20	13/20	7/10	4/5	4/5
	12	7/12	2/3	2/3	3/4	5/6
	16	9/16	5/8	11/16	3/4	13/16
$N_1 = 5$	$N_2 =$ 6	3/5	2/3	2/3	5/6	5/6
	7	4/7	23/35	5/7	29/35	6/7
	8	11/20	5/8	27/40	4/5	4/5
	9	5/9	3/5	31/45	7/9	4/5
	10	1/2	3/5	7/10	7/10	4/5
	15	8/15	3/5	2/3	11/15	11/15
	20	1/2	11/20	3/5	7/10	3/4

[1] Es válido para test unilaterales y bilaterales.

TABLA A.18. Valores críticos del test de Kolmogorov-Smirnov para dos muestras de distinto tamaño $n_1 \neq n_2$ (continuación)

$$D_{n_1, n_2} = \max_x |F_{n_1}(x) - G_{n_2}(x)|$$

$$P[D_{n_1, n_2} > D_{n_1, n_2}] = \alpha$$

$$N_1 = \min(n_1, n_2) \quad , \quad N_2 = \max(n_1, n_2)$$

Test unilateral / Test bilateral		Nivel de significación α α=0,10 / α=0,20	0,05 / 0,10	0,025 / 0,05	0,01 / 0,02	0,005 / 0,01
$N_1 = 6$	$N_2 =$ 7	23/42	4/7	29/42	5/7	5/6
	8	1/2	7/12	2/3	3/4	3/4
	9	1/2	5/9	2/3	13/18	7/9
	10	1/2	17/30	19/30	7/10	11/15
	12	1/2	7/12	7/12	2/3	3/4
	18	4/9	5/9	11/18	2/3	13/18
	24	11/24	1/2	7/12	5/8	2/3
$N_1 = 7$	$N_2 =$ 8	27/56	33/56	5/8	41/56	3/4
	9	31/63	5/9	40/63	5/7	47/63
	10	33/70	39/70	43/70	7/10	5/7
	14	3/7	1/2	4/7	9/14	5/7
	28	3/7	13/28	15/28	17/28	9/14
$N_1 = 8$	$N_2 =$ 9	4/9	13/24	5/8	2/3	3/4
	10	19/40	21/40	23/40	27/40	7/10
	12	11/24	1/2	7/12	5/8	2/3
	16	7/16	1/2	9/16	5/8	5/8
	32	13/32	7/16	1/2	9/16	19/32
$N_1 = 9$	$N_2 =$ 10	7/15	1/2	26/45	2/3	31/45
	12	4/9	1/2	5/9	11/18	2/3
	15	19/45	22/45	8/15	3/5	29/45
	18	7/18	4/9	1/2	5/9	11/18
	36	13/36	5/12	17/36	19/36	5/9
$N_1 = 10$	$N_2 =$ 15	2/5	7/15	1/2	17/30	19/30
	20	2/5	9/20	1/2	11/20	3/5
	40	7/20	2/5	9/20	1/2	
$N_1 = 12$	$N_2 =$ 15	23/60	9/20	1/2	11/20	7/12
	16	3/8	7/16	23/48	13/24	7/12
	18	13/36	5/12	17/36	19/36	5/9
	20	11/30	5/12	7/15	31/60	17/30
$N_1 = 15$	$N_2 = 20$	7/20	2/5	13/30	29/60	31/60
$N_1 = 6$	$N_2 = 20$	27/80	31/80	17/40	19/40	41/80
Aproximación para n_1 y n_2 grandes	$\sqrt{\frac{n_1 + n_2}{n_1 n_2}} \times$	1,0730	1,2239	1,3581	1,5174	1,6276

FUENTE: «Distribution table for the deviation between two sample cumulatives». *An.. Math. Statis.* 23: 435-441 (1952).