MAT1405 - Tarea 3 - Respuestas

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Medidas de Tendencia Central: Media Aritmética, Geométrica, Armónica y Mediana del Valor, Precio (USD) Stock al Cierre (Close)

Symbol	bar_X	bar_X_g	bar_X_a	Q2
NVR	4617.2865	4503.3334	4390.5883	4485.91
BKNG	2212.7074	2162.2879	2114.7576	2114.44
AZO	1746.1083	1642.2728	1543.9976	1637.19
CMG	1426.7821	1348.2807	1264.2928	1467.68
MTD	1144.9713	1105.9199	1064.4735	1188.38
TDG	626.8712	608.2705	590.0022	606.09
EQIX	693.6443	686.3652	678.5785	706.48
BLK	663.3605	647.2776	630.7648	672.71
ORLY	621.2268	588.3264	557.4899	603.45
AVGO	515.8981	474.9988	439.6758	482.61
REGN	594.8534	568.7859	539.8363	607.98
LRCX	470.1067	436.3448	399.7780	487.05
GWW	476.2457	448.9425	423.9567	454.43
NOW	469.4118	449.6817	428.8014	475.13
TMO	469.3445	454.9990	439.0762	503.14
COST	429.7334	414.3755	399.0920	450.66
INTU	408.9942	392.9580	377.2705	405.36
IDXX	432.0658	413.2853	394.1339	447.18
MSCI	433.2080	414.0476	393.0213	456.68
ADBE	437.9929	423.4665	409.2387	437.97

Medidas de Dispersión: Q1, Q2, Q3, IQR, Min, Max, Desviación Estándar, Rango, CV, Precio (USD) Stock al Cierre (Close)

Symbol	Q1	Q2	Q3	Min	Max	DS	Rango	CV	IQR
NVR	3867.47	4485.91	5222.60	2175.00	7617.24	1033.48605	5442.24	0.2238297	1355.13
BKNG	1875.76	2114.44	2443.50	1152.24	3840.22	489.35053	2687.98	0.2211546	567.74
AZO	1156.28	1637.19	2381.23	723.22	2842.54	599.74660	2119.32	0.3434762	1224.95
CMG	1056.45	1467.68	1747.22	465.21	2666.99	452.82839	2201.78	0.3173774	690.77
MTD	844.33	1188.38	1380.65	589.41	1702.53	286.40315	1113.12	0.2501400	536.32
TDG	528.06	606.09	665.22	245.79	1157.79	156.82826	912.00	0.2501762	137.16
EQIX	638.37	706.48	768.78	446.44	882.83	97.11829	436.39	0.1400117	130.41
BLK	551.77	672.71	751.83	327.42	971.49	143.65044	644.07	0.2165496	200.06
ORLY	440.60	603.45	810.85	260.92	1067.02	204.65320	806.10	0.3294340	370.25
AVGO	318.71	482.61	597.02	167.87	1283.44	220.78106	1115.57	0.4279548	278.31
REGN	490.68	607.98	727.13	273.46	959.73	166.08180	686.27	0.2791979	236.45
LRCX	315.98	487.05	609.07	172.43	926.03	167.77157	753.60	0.3568798	293.09
GWW	337.59	454.43	576.02	209.49	972.54	166.52118	763.05	0.3496539	238.43
NOW	380.67	475.13	559.58	220.01	812.94	131.23973	592.93	0.2795834	178.91
TMO	356.82	503.14	550.89	255.30	667.24	108.75178	411.94	0.2317099	194.07
COST	317.92	450.66	521.32	239.58	724.51	113.86108	484.93	0.2649575	203.40
INTU	296.44	405.36	490.82	194.72	694.66	114.67289	499.94	0.2803778	194.38
IDXX	325.71	447.18	517.76	182.94	705.76	124.66743	522.82	0.2885381	192.05
MSCI	341.22	456.68	523.84	209.24	675.15	121.45007	465.91	0.2803505	182.62
ADBE	340.77	437.97	514.55	259.03	688.37	112.85263	429.34	0.2576586	173.78

Valores Extremos Normalización-Z-1.96>Z>1.96, Precio (USD) Stock al Cierre (Close)

NVR 45 9 BKNG 61 5 AZO 0 0 CMG 25 3 MTD 0 0 TDG 68 21 EQIX 0 49 BLK 14 5 ORLY 19 0 AVGO 57 0 REGN 25 0 LRCX 21 0 GWW 55 0 NOW 25 0 TMO 0 1 COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0	Symbol	Upper	Lower
AZO 0 0 CMG 25 3 MTD 0 0 TDG 68 21 EQIX 0 49 BLK 14 5 ORLY 19 0 AVGO 57 0 REGN 25 0 LRCX 21 0 GWW 55 0 NOW 25 0 TMO 0 1 COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0	NVR		9
CMG 25 3 MTD 0 0 TDG 68 21 EQIX 0 49 BLK 14 5 ORLY 19 0 AVGO 57 0 REGN 25 0 LRCX 21 0 GWW 55 0 NOW 25 0 TMO 0 1 COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0	BKNG	61	5
MTD 0 0 TDG 68 21 EQIX 0 49 BLK 14 5 ORLY 19 0 AVGO 57 0 REGN 25 0 LRCX 21 0 GWW 55 0 NOW 25 0 TMO 0 1 COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0	AZO	0	0
TDG 68 21 EQIX 0 49 BLK 14 5 ORLY 19 0 AVGO 57 0 REGN 25 0 LRCX 21 0 GWW 55 0 NOW 25 0 TMO 0 1 COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0	CMG	25	3
EQIX 0 49 BLK 14 5 ORLY 19 0 AVGO 57 0 REGN 25 0 LRCX 21 0 GWW 55 0 NOW 25 0 TMO 0 1 COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0	MTD	0	0
BLK 14 5 ORLY 19 0 AVGO 57 0 REGN 25 0 LRCX 21 0 GWW 55 0 NOW 25 0 TMO 0 1 COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0	TDG	68	21
ORLY 19 0 AVGO 57 0 REGN 25 0 LRCX 21 0 GWW 55 0 NOW 25 0 TMO 0 1 COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0	EQIX	0	49
AVGO 57 0 REGN 25 0 LRCX 21 0 GWW 55 0 NOW 25 0 TMO 0 1 COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0	BLK	14	5
REGN 25 0 LRCX 21 0 GWW 55 0 NOW 25 0 TMO 0 1 COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0		19	0
LRCX 21 0 GWW 55 0 NOW 25 0 TMO 0 1 COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0	AVGO	57	0
GWW 55 0 NOW 25 0 TMO 0 1 COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0	REGN	25	0
NOW 25 0 TMO 0 1 COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0	LRCX	21	0
TMO 0 1 COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0	GWW	55	0
COST 40 0 INTU 44 0 IDXX 28 2 MSCI 1 0	NOW	25	0
INTU 44 0 IDXX 28 2 MSCI 1 0	TMO	0	1
IDXX 28 2 MSCI 1 0	COST	40	0
MSCI 1 0	INTU	44	0
	IDXX	28	2
	MSCI	1	0
ADBE 26	ADBE	26	0

Valores Extremos IQR $Q_1 - 1.5 * IQR > X > Q_3 + 1.5 * IQR$, Precio (USD) Stock al Cierre (Close)

NVR 11 0 BKNG 47 0 AZO 0 0 CMG 0 0 MTD 0 0 MTD 0 0 TDG 116 23 EQIX 0 0 BLK 0 0 ORLY 0 0 AVGO 47 0 REGN 0 0 LRCX 0 0 GWW 11 0 NOW 0 0 TMO 0 0 COST 0 0 INTU 0 0 MSCI 0 0	Symbol	Upper	Lower
AZO 0 0 CMG 0 0 MTD 0 0 TDG 116 23 EQIX 0 0 BLK 0 0 ORLY 0 0 AVGO 47 0 REGN 0 0 LRCX 0 0 GWW 11 0 NOW 0 0 TMO 0 0 COST 0 0 INTU 0 0 IDXX 0 0 MSCI 0 0	NVR	11	0
CMG 0 0 MTD 0 0 TDG 116 23 EQIX 0 0 BLK 0 0 ORLY 0 0 AVGO 47 0 REGN 0 0 LRCX 0 0 GWW 11 0 NOW 0 0 TMO 0 0 COST 0 0 INTU 0 0 IDXX 0 0 MSCI 0 0	BKNG	47	0
MTD 0 0 TDG 116 23 EQIX 0 0 BLK 0 0 ORLY 0 0 AVGO 47 0 REGN 0 0 LRCX 0 0 GWW 11 0 NOW 0 0 TMO 0 0 COST 0 0 INTU 0 0 MSCI 0 0	AZO	0	0
TDG 116 23 EQIX 0 0 BLK 0 0 ORLY 0 0 AVGO 47 0 REGN 0 0 LRCX 0 0 GWW 11 0 NOW 0 0 TMO 0 0 COST 0 0 INTU 0 0 IDXX 0 0 MSCI 0 0	CMG	0	0
EQIX 0 0 BLK 0 0 ORLY 0 0 AVGO 47 0 REGN 0 0 LRCX 0 0 GWW 11 0 NOW 0 0 TMO 0 0 COST 0 0 INTU 0 0 IDXX 0 0 MSCI 0 0	MTD	0	0
BLK 0 0 ORLY 0 0 AVGO 47 0 REGN 0 0 LRCX 0 0 GWW 11 0 NOW 0 0 TMO 0 0 COST 0 0 INTU 0 0 IDXX 0 0 MSCI 0 0	TDG	116	23
ORLY 0 0 AVGO 47 0 REGN 0 0 LRCX 0 0 GWW 11 0 NOW 0 0 TMO 0 0 COST 0 0 INTU 0 0 IDXX 0 0 MSCI 0 0	EQIX	0	0
AVGO 47 0 REGN 0 0 LRCX 0 0 GWW 11 0 NOW 0 0 TMO 0 0 COST 0 0 INTU 0 0 IDXX 0 0 MSCI 0 0	BLK	0	0
REGN 0 0 LRCX 0 0 GWW 11 0 NOW 0 0 TMO 0 0 COST 0 0 INTU 0 0 IDXX 0 0 MSCI 0 0	ORLY	0	0
LRCX 0 0 GWW 11 0 NOW 0 0 TMO 0 0 COST 0 0 INTU 0 0 IDXX 0 0 MSCI 0 0	AVGO	47	0
GWW 11 0 NOW 0 0 TMO 0 0 COST 0 0 INTU 0 0 IDXX 0 0 MSCI 0 0	REGN	0	0
NOW 0 0 TMO 0 0 COST 0 0 INTU 0 0 IDXX 0 0 MSCI 0 0	LRCX	0	0
TMO 0 0 COST 0 0 INTU 0 0 IDXX 0 0 MSCI 0 0	GWW	11	0
COST 0 0 INTU 0 0 IDXX 0 0 MSCI 0 0	NOW	0	0
INTU 0 0 IDXX 0 0 MSCI 0 0	TMO	0	0
IDXX 0 0 MSCI 0 0	COST	0	0
MSCI 0 0	INTU	0	0
	IDXX	0	0
ADDE	MSCI	0	0
ADBE 0	ADBE	0	0

Medidas de Tendencia Central: Media Aritmética, Geométrica, Armónica y Mediana del Valor, HPR(Precio) (USD) Stock al Cierre (Close)

Symbol	bar_X	bar_X_g	bar_X_a	Q2
NVR	0.0010245	NaN	-0.0150754	0.0009210
BKNG	0.0008525	NaN	0.0000000	0.0007064
AZO	0.0009378	NaN	-0.0186015	0.0007995
CMG	0.0013086	NaN	0.0093597	0.0012782
MTD	0.0005846	NaN	0.0071097	0.0011717
TDG	0.0010775	NaN	0.0000000	0.0015580
EQIX	0.0006875	NaN	0.0000000	0.0004350
BLK	0.0006617	NaN	0.0000000	0.0009973
ORLY	0.0009378	NaN	1.5910699	0.0012853
AVGO	0.0013940	NaN	0.0134875	0.0013960
REGN	0.0009418	NaN	0.1920070	0.0007196
LRCX	0.0017314	NaN	0.0000000	0.0014684
GWW	0.0010978	NaN	0.0000000	0.0014787
NOW	0.0012956	NaN	-0.0107787	0.0022270
TMO	0.0007104	NaN	0.0117559	0.0011420
COST	0.0010116	NaN	0.0000000	0.0015232
INTU	0.0010340	NaN	0.0000000	0.0013467
IDXX	0.0009803	NaN	0.0000000	0.0020189
MSCI	0.0010533	NaN	0.0000000	0.0010234
ADBE	0.0008521	NaN	0.0000000	0.0016987

Medidas de Dispersión: Q1, Q2, Q3, IQR, Min, Max, Desviación Estándar, Rango, CV, HPR(Precio) Stock al Cierre (Close)

Symbol	Q1	Q2	Q3	Min	Max	DS	Rango	CV	IQR
NVR	-	0.0009210	0.0116822	-	0.2108000	0.0235636	0.4162902	22.99977	0.0211274
	0.0094452			0.2054902					
BKNG	-	0.0007064	0.0124595	-	0.1875207	0.0234246	0.2998950	27.47602	0.0235806
-	0.0111211			0.1123743					
AZO	-	0.0007995	0.0101437	-	0.1178203	0.0179453	0.2771915	19.13571	0.0175015
	0.0073579			0.1593712					
CMG	-	0.0012782	0.0116696	-	0.1524903	0.0223583	0.2653791	17.08552	0.0206298
MID	0.0089603	0.0011515	0.0100401	0.1128887	0.1140100	0.0100071	0.0100000	94 15400	0.0007040
MTD	-	0.0011717	0.0120481	-	0.1142122	0.0199671	0.2199883	34.15482	0.0225842
TDG	0.0105361	0.0015500	0.0120649	0.1057760	0.2440204	0.0010611	0.4637685	24 00526	0.0222851
IDG	- 0.01.00001	0.0015580	0.0120049	- 0.107001	0.2440294	0.0258055	0.4057085	24.00330	0.0222831
EQIX	0.0102201	0.0004350	0.0109253	0.2197391	0.1160100	0.0102135	0.2426683	27 04661	0.0204259
EGIA	0.0095007	0.0004550	0.0109299	0.1266484	0.1100199	0.0132133	0.2420003	21.34001	0.0204203
BLK	<u> </u>	0.0009973	0.0101690	0.1200484	0.1352391	0.0202264	0.2717851	30 56533	0.0195745
DLIX	0.0094055	0.0003310	0.0101030	0.1365460	0.1002001	0.0202204	0.2111001	00.00000	0.0130140
ORLY		0.0012853	0.0091326	-	0.1288171	0.0177146	0.2830649	18.89042	0.0162257
01021	0.0070931	0.0012000	0.0001020	0.1542478	0.12001.1	0.01.1110	0.200010	10.00012	0.010220.
AVGO	-	0.0013960	0.0134998	-	0.1583368	0.0232490	0.3574658	16.67782	0.0243085
	0.0108087			0.1991290					
REGN	-	0.0007196	0.0109633	-	0.1884682	0.0200194	0.2933617	21.25693	0.0209959
	0.0100325			0.1048935					
LRCX	-	0.0014684	0.0177624	-	0.1959554	0.0300003	0.3802323	17.32688	0.0315893
	0.0138268			0.1842769					
GWW	-	0.0014787	0.0100672	-	0.1393861	0.0188998	0.2765562	17.21575	0.0182487
	0.0081815			0.1371701					
NOW	-	0.0022270	0.0160234	-	0.1344396	0.0268468	0.2618050	20.72075	0.0287803
	0.0127569	0.0011400	0.0104050	0.1273654	0.10.15000	0.010000	0.105555	25 25212	0.010000
TMO	-	0.0011420	0.0104352	-	0.1047003	0.0180095	0.1875756	25.35012	0.0192635
COST	0.0088282	0.0015929	0.0002702	0.0828753	0.0005045	0.0150999	0.0041077	14.05064	0.0146602
COST	-	0.0015232	0.0083783	-	0.0995945	0.0150228	0.2241077	14.85064	0.0146693
INTU	0.0062911	0.0012467	0.0135379	0.1245132	0.2009012	0.0225271	0.3455668	22.75200	0.0243764
11110	0.010000	0.0013407	0.0133313	0.1447656	0.2000012	0.0233271	0.5455006	22.19309	0.0243704
IDXX	0.0108385	0.0020180	0.0132441	0.1447656	0.1205313	0.0210250	0.2399002	22 36757	0.0240939
$1DM\Lambda$	0.0108497	0.0020103	0.0102441	0.1193689	0.1200010	0.0213203	0.2000002	22.00101	0.0240303
MSCI	- - -	0.0010234	0.0132477	<u>0.1195069</u>	0.1803498	0.0231280	0.3152353	21 95842	0.0239554
1,1,001	0.0107078	5.0010 20 1	0.010E111	0.1348855	0.1000100	J.U291200	0.0102000	_1.00012	5.0255554
ADBE	-	0.0016987	0.0134973	-	0.1771930	0.0235627	0.3451247	27.65271	0.0241493
	0.0106520		. 3 - 3 . 3	0.1679317	5 3 0		- >		
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Valores Extremos Normalización-Z $-1.96>Z>1.96,\ HPR(Precio)$ (USD) Stock al Cierre (Close)

Symbol	Upper	Lower
NVR	21	24
BKNG	32	37
AZO	28	22
CMG	30	31
MTD	29	32
TDG	25	29
EQIX	33	26
BLK	29	28
ORLY	22	27
AVGO	27	23
REGN	32	27
LRCX	34	38
GWW	26	25
NOW	35	33
TMO	31	40
COST	29	28
INTU	21	35
IDXX	29	37
MSCI	30	27
ADBE	24	33

Valores Extremos IQR $Q_1 - 1.5 * IQR > X > Q_3 + 1.5 * IQR$, HPR(Precio) (USD) Stock al Cierre (Close)

Upper	Lower
25	33
28	31
28	23
33	34
16	21
33	35
29	24
31	29
26	33
23	22
31	21
23	30
27	28
29	26
26	31
29	28
21	31
18	26
22	23
18	30
	25 28 28 33 16 33 16 33 29 31 26 23 31 27 29 26 29 26 29 21 18

Total días de pérdida, HPR(Precio) (USD) Stock al Cierre (Close)

Symbol	Ganancia	Perdida
NVR	654	566
BKNG	635	585
AZO	644	576
CMG	651	569
MTD	661	559
TDG	664	556
EQIX	637	583
BLK	655	565
ORLY	666	554
AVGO	652	568
REGN	633	587
LRCX	630	590
GWW	670	550
NOW	661	559
TMO	652	568
COST	668	552
INTU	647	573
IDXX	673	547
MSCI	640	580
ADBE	653	567