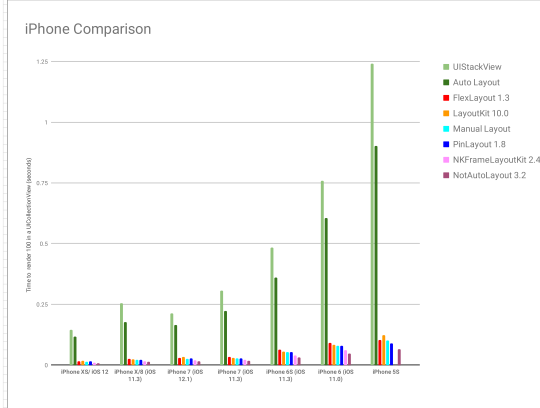
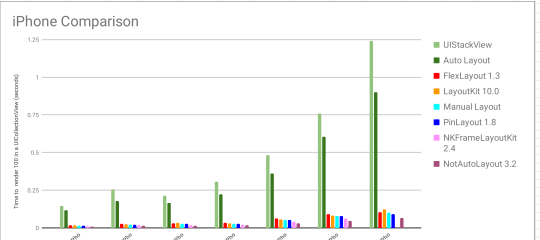
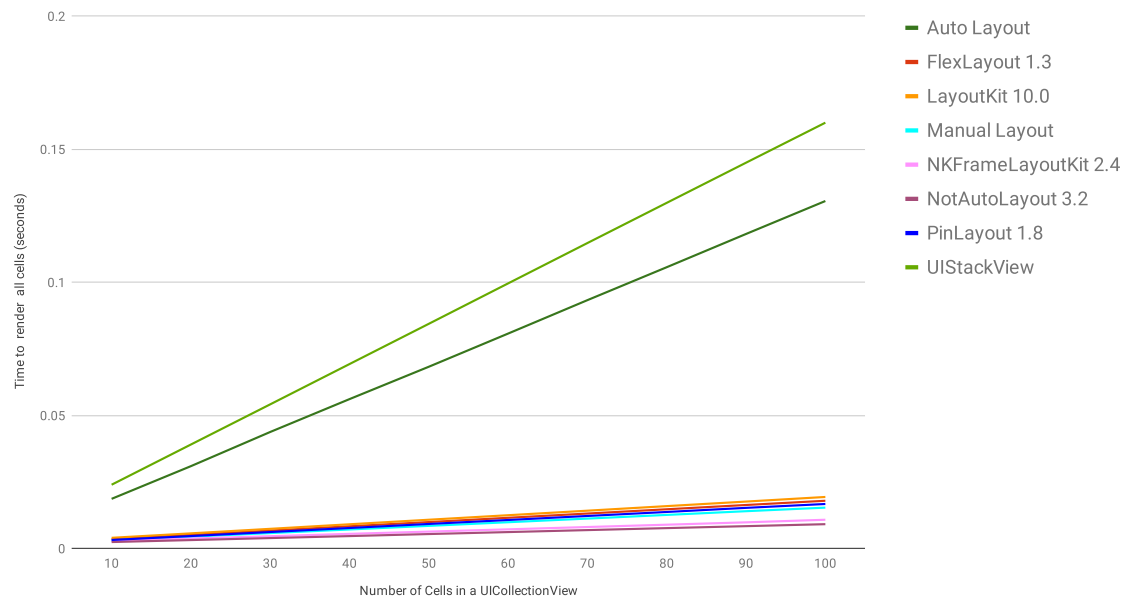


PinLayout vs AutoLayout Ratio	7.746748231	8.066571247	5.782034008	8.049055752	6.836422597	7.630711588	10.00596102
Auto Layout	0.118180056	0.171119703	0.165302877	0.222676238	0.358243879	0.405132036	0.901693287
FlexLayout 1.3	0.01612799064	0.02656662778	0.02916756017	0.03421845436	0.06279492378	0.09226464755	0.1043748021
LayoutKit 10.0	0.01761384664	0.02177137195	0.0335018734	0.0296293521	0.05060399121	0.08384746221	0.1239767607
Manual Layout	0.01399518549	0.02125157892	0.02684174963	0.02668939097	0.0528077564	0.07938570243	0.1022211075
NKFrameLayoutKit 2.4	0.00989787367	0.01639518189	0.01900053398	0.02119137095	0.03913546656	0.06171905994	0.07439319615
NotAutoLayout 3.2	0.00817038618	0.01325373332	0.01586192474	0.01709152846	0.03185648881	0.04793191615	0.0645413207
PinLayout 1.8	0.01525188149	0.02195728084	0.02862836633	0.02788973724	0.0526337266	0.07928660344	0.09011566678
UITableView	0.1449092456	0.2551170349	0.2128698111	0.305982399	0.4845847845	0.7598515749	1.242037606

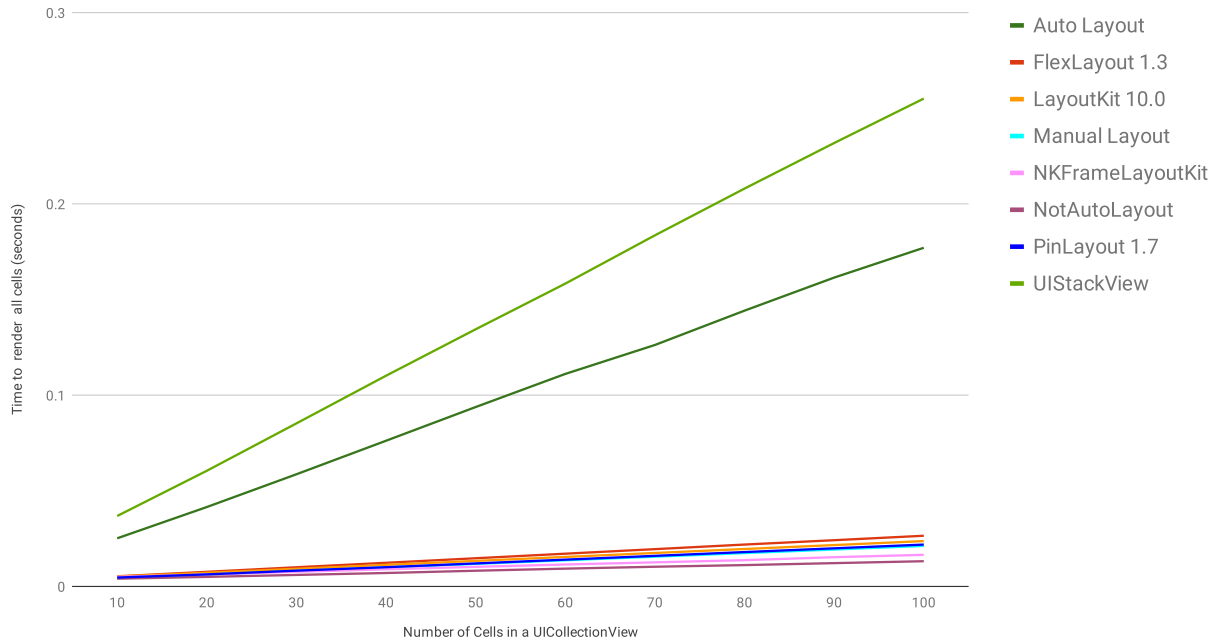


iPhone XS (iOS 12.1)



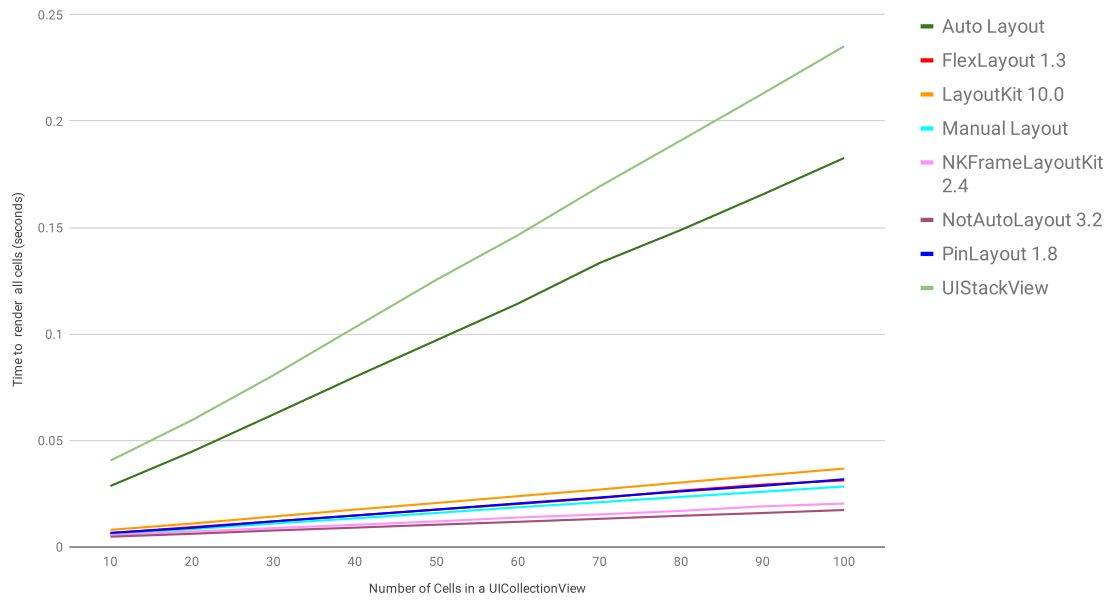
Number of Cells in a UICollectionView	10	20	30	40	50	60	70	80	90	100
Auto Layout	0.01863823997	0.03091934594	0.04375718465	0.05610466005	0.06826314926	0.08072514717	0.09327992526	0.1056504965	0.1181380086	0.1305122375
FlexLayout 1.3	0.003516589968	0.00511589768	0.00671543210	0.00833485225	0.00991796857	0.01152470875	0.0131182361	0.01472255765	0.01632799064	0.01791531486
LayoutKit 10.0	0.004001317978	0.005676625812	0.00737404998	0.00908461562	0.01079143504	0.01248882435	0.01419044716	0.01590506614	0.01761166464	0.01934320193
Manual Layout	0.003043366058	0.004411164885	0.00577467545	0.00712823276	0.00848692455	0.00985155265	0.01121896373	0.01260197014	0.01399518545	0.01533702106
NKFrameLayoutKit 2.4	0.002813596404	0.003722229412	0.00460487765	0.00549297055	0.00632864424	0.00718331933	0.00805400943	0.00892930155	0.00980978736	0.0107828571
NotAutoLayout 3.2	0.002408968715	0.003150706021	0.00390324564	0.00464855852	0.00541304055	0.0061532376	0.00689693645	0.00764252935	0.00837839841	0.00912009911
PinLayout 1.8	0.003178782312	0.004659814613	0.00617437155	0.00768741851	0.00920320215	0.01069169998	0.01220519655	0.01370703684	0.01525198145	0.01670641305
UIStackView	0.02394317729	0.03904838287	0.0541356802	0.06927220821	0.0843937695	0.09957393733	0.1147310072	0.1298266053	0.1449092456	0.1599398681

iPhone X / iPhone 8 (iOS 11.3)



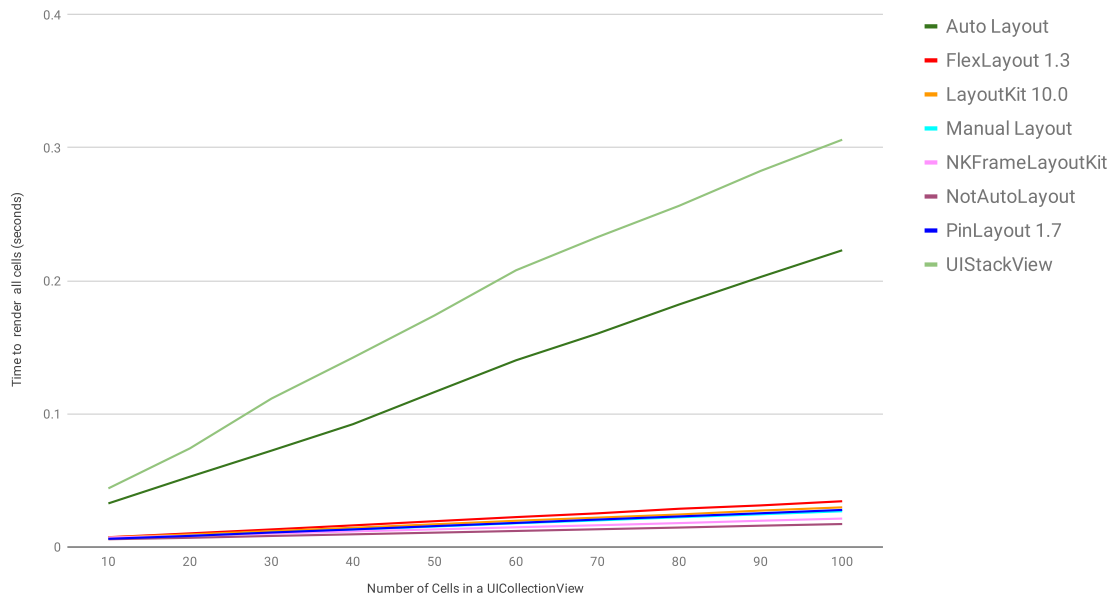
Number of Cells in a UICollectionView	10	20	30	40	50	60	70	80	90	100
Auto Layout	0.0252305299	0.04157748695	0.05871184005	0.07624001162	0.09385727752	0.1111688879	0.1263011396	0.1442517383	0.1615302563	0.1771199703
FlexLayout 1.3	0.00535645905	0.00771313722	0.01009850025	0.01242584652	0.014803427110	0.01718756506	0.01956292295	0.02196725814	0.02423417284	0.02656662778
LayoutKit 10.0	0.00526923443	0.00723562480	0.00929828043	0.01135841782	0.0134227562	0.01549574222	0.01756215932	0.01963500883	0.021696516810	0.02377137195
Manual Layout	0.00450663522	0.00627636164	0.00814458412	0.010015903710	0.01187314426	0.01375178605	0.015621493410	0.01750498595	0.01936366237	0.02125537892
NKFrameLayoutKit	0.00510133038	0.00630850687	0.00771705737	0.00902266008	0.01031191075	0.011539414010	0.01266122166	0.01379662507	0.01535314502	0.01659535185
NotAutoLayout	0.00411367562	0.00506191662	0.00608317346	0.00709128295	0.00828087132	0.00936786927	0.01036582042	0.01122170815	0.01225059498	0.01325372332
PinLayout 1.7	0.00471909653	0.00635833000	0.00831201450	0.01012357798	0.01208791815	0.014072257610	0.01605972032	0.018039269110	0.02000067945	0.02195728084
UIStackView	0.03689943467	0.0605324086	0.08531223734	0.1102355003	0.1345044971	0.1583731515	0.1836238305	0.2080715895	0.2318818092	0.2551170349

iPhone 7 (iOS 12.1)



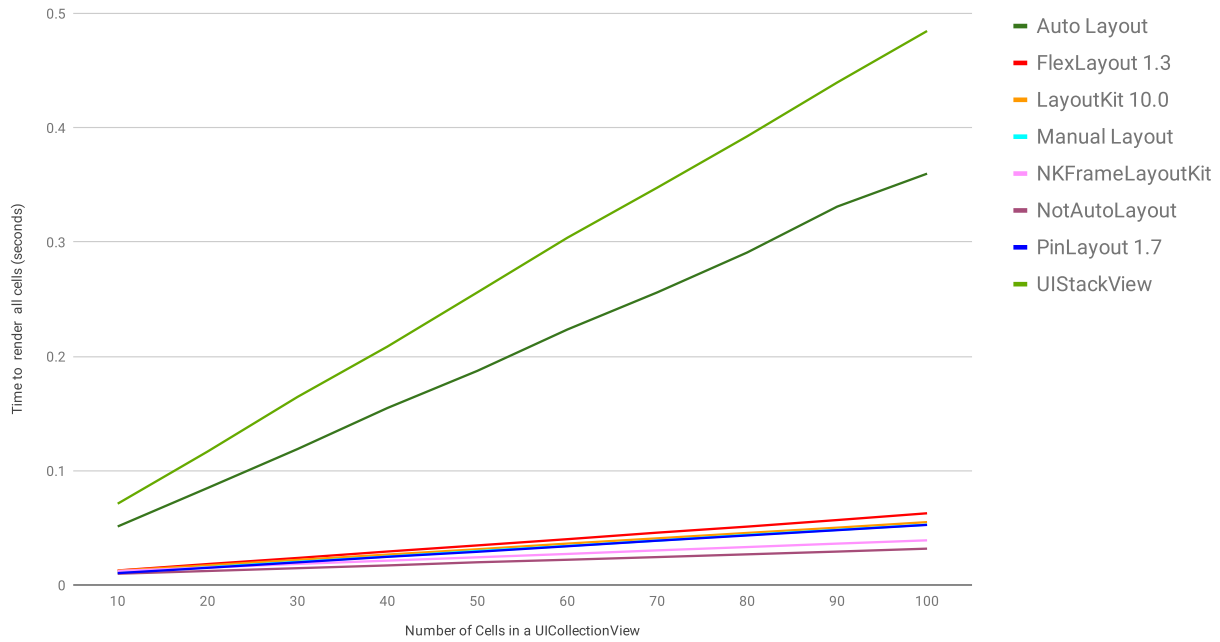
Number of Cells in a UICollectionView	10	20	30	40	50	60	70	80	90	100
Auto Layout	0.02855524421	0.04469026172	0.06217916573	0.07982269617	0.09704743732	0.114261455	0.1333239973	0.1488820144	0.1655301877	0.182660381
FlexLayout 1.3	0.0064503092	0.00922380346	0.01195193185	0.0147156645	0.01741706914	0.020111835	0.0228960270	0.02638582175	0.02916756017	0.0311986785
LayoutKit 10.0	0.00793129628	0.0109088278	0.01420746051	0.01747340375	0.02056093848	0.02378071188	0.0268833982	0.03021732148	0.0335018754	0.03674154622
Manual Layout	0.00585570875	0.00832423592	0.0109090105	0.0133398930	0.0158877259	0.0185621888	0.02094806234	0.02342007045	0.0258417496	0.0283263093
NKFrameLayoutKit 2.4	0.00551628673	0.0070699050	0.00879311561	0.0102914474	0.01191292774	0.0137595117	0.0151980013	0.0168599764	0.0190005639	0.0202969145
NotAutoLayout 3.2	0.0047353005	0.0060856479	0.0076530480	0.0089872255	0.0103773861	0.0117268188	0.013127296	0.0145668879	0.0158619247	0.0172683535
PinLayout 1.8	0.00648054461	0.0088809507	0.0119001304	0.0146602513	0.0174988590	0.0203728270	0.0231525870	0.0260240542	0.0286283663	0.0317250937
UIStackView	0.0404659032	0.0594727572	0.0805814724	0.1030758858	0.1254775375	0.1464221307	0.1692629854	0.1909775138	0.2128698111	0.2351623774

iPhone 7 (iOS 11.3)



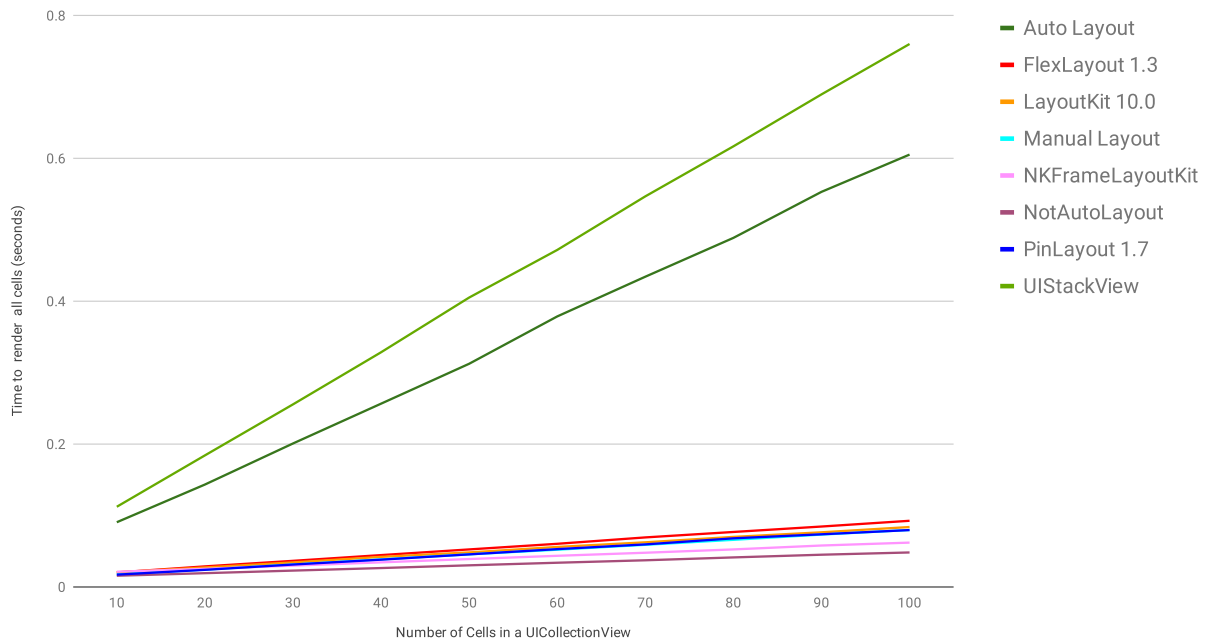
Number of Cells in a UICollectionView	10	20	30	40	50	60	70	80	90	100
Auto Layout	0.03259914921	0.05267890504	0.07226485014	0.09216000817	0.1163028081	0.1401895285	0.1602653095	0.1821324825	0.2028049946	0.2228762388
FlexLayout 1.3	0.00717621019	0.01006882906	0.01303670319	0.01607485045	0.01920962784	0.02230174541	0.02512686845	0.02857438496	0.03108495293	0.03421845436
LayoutKit 10.0	0.00707884489	0.00930175626	0.01177795639	0.01428041159	0.01690252821	0.0195434231	0.02190180965	0.0242527184	0.02720988441	0.02962935321
Manual Layout	0.00612640235	0.00817578788	0.01048699021	0.01288077006	0.01521459317	0.01766328435	0.01982023202	0.02218371889	0.02441526913	0.02668993097
NKFrameLayoutKit	0.00695777105	0.00831913455	0.00990916242	0.01151132177	0.01303918331	0.01464699489	0.01618000765	0.01779413222	0.01956467904	0.02119137595
NotAutoLayout	0.00563458244	0.00674048606	0.00811982347	0.00934875784	0.01061003334	0.01187450185	0.01315867127	0.01444259371	0.01584372483	0.01709158946
PinLayout 1.7	0.00598414242	0.00816147986	0.0107093111	0.01304298252	0.01551935306	0.01791873787	0.02043756902	0.02280059186	0.02519953549	0.02768973724
UIStackView	0.04388314745	0.0739740559	0.1113824315	0.1422013789	0.1738895575	0.2078489542	0.2328026056	0.2563153505	0.2825381756	0.305982399

iPhone 6S



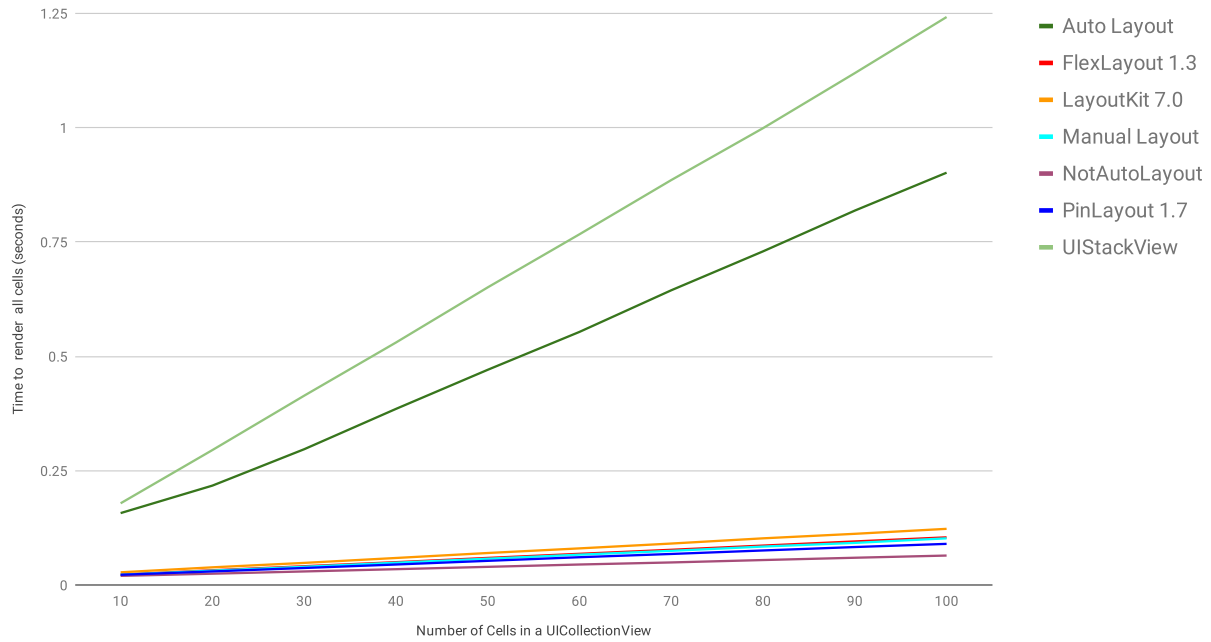
Number of Cells in a UICollectionView	10	20	30	40	50	60	70	80	90	100
Auto Layout	0.0512660861	0.08492515484	0.1189939313	0.1549027307	0.1873891751	0.2235136032	0.2559970617	0.2908960342	0.3309919834	0.3598263979
FlexLayout 1.3	0.01277739941	0.01839173707	0.02371651627	0.02934900011	0.03470030735	0.04014255047	0.04585431923	0.05112766623	0.05687554677	0.06279492378
LayoutKit 10.0	0.01264964342	0.01723734403	0.02202467296	0.0266688968	0.03132377192	0.03628124935	0.04088797565	0.04559957981	0.05020273924	0.05506039921
Manual Layout	0.01097523648	0.01564248092	0.02031607385	0.02495511567	0.02978030724	0.03422822952	0.0389080552	0.04389188082	0.04829762095	0.05282077664
NKFrameLayoutKit	0.01238291941	0.01533448696	0.01850395636	0.02137142293	0.02430894545	0.02723355225	0.03035962231	0.03326745956	0.03626206517	0.03913561656
NotAutoLayout	0.00991074873	0.01232803595	0.01477143515	0.01718802775	0.01995901734	0.02214918448	0.02448173558	0.02689389492	0.02929363932	0.03185680881
PinLayout 1.7	0.01046439633	0.01509854865	0.0198720343	0.024719593	0.02912074496	0.03395203352	0.03881837771	0.04341045515	0.04802872453	0.0526337266
UIStackView	0.07119445006	0.116828031	0.1645895583	0.2086391687	0.2560346127	0.3037777901	0.3476206064	0.3925057888	0.4395415783	0.4845847845

iPhone 6 (iOS 11.0)



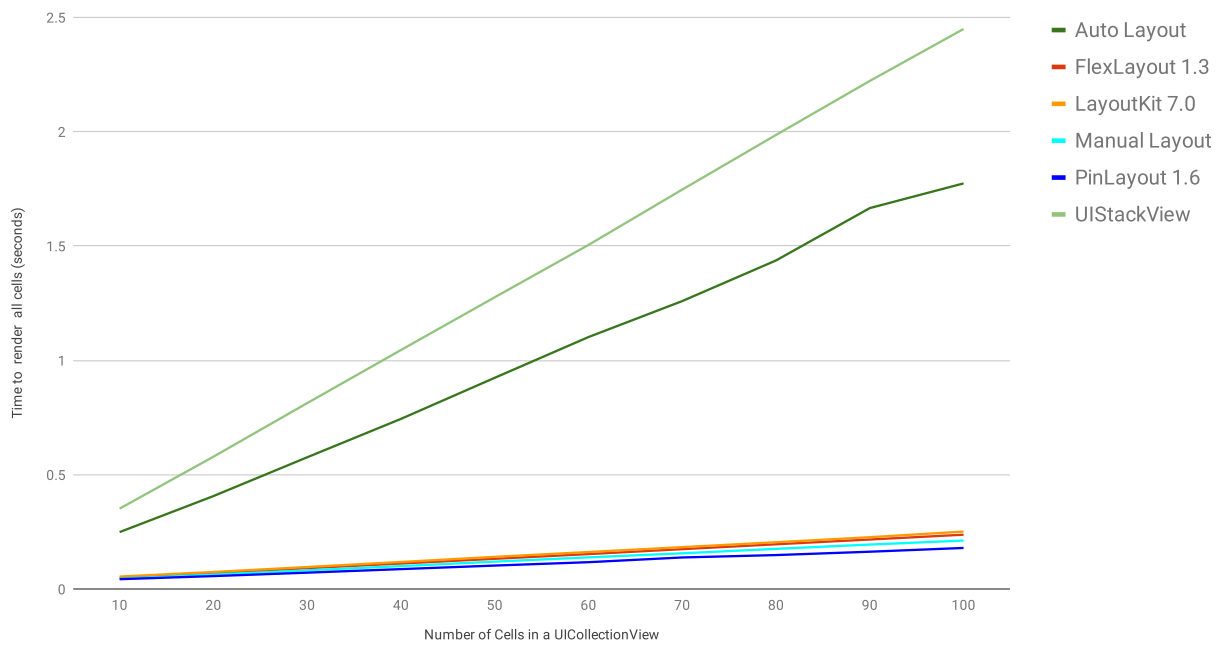
Number of Cells in a UICollectionView	10	20	30	40	50	60	70	80	90	100
Auto Layout	0.09026259184	0.143015027	0.2005220175	0.2562578201	0.3121278048	0.3784003973	0.4340202093	0.4883872271	0.5528254032	0.6050132036
FlexLayout 1.3	0.01997045208	0.02844120065	0.03619943772	0.04424625894	0.05218603611	0.06005501747	0.06900081635	0.07662414653	0.08423373103	0.09228646755
LayoutKit 10.0	0.0201833868	0.02695316076	0.03399506013	0.04175641135	0.04799857026	0.05565000243	0.06214706337	0.06974806786	0.07614780324	0.08356476823
Manual Layout	0.01717967502	0.02399788016	0.03108265544	0.03823739066	0.04532999578	0.05178675652	0.05865233474	0.06561288238	0.07296877248	0.07938570243
NKFrameLayoutKit	0.0209670042	0.02504374981	0.02948668073	0.0340839386	0.03870606422	0.04325610395	0.04754305428	0.05218816996	0.0576562749	0.06171905994
NotAutoLayout	0.01533756473	0.01893483018	0.02252981398	0.02610042462	0.02992402806	0.0335517923	0.03697778497	0.04099892616	0.04477491586	0.04793319816
PinLayout 1.7	0.01685527762	0.0236035225	0.03102382747	0.03784433555	0.04524942585	0.05259585381	0.05921302122	0.06773286661	0.07336321047	0.07928660344
UIStackView	0.1119272179	0.1838214795	0.2552663803	0.3282209873	0.4048285961	0.471491003	0.5465214014	0.616546011	0.6892997503	0.7598515749

iPhone 5S



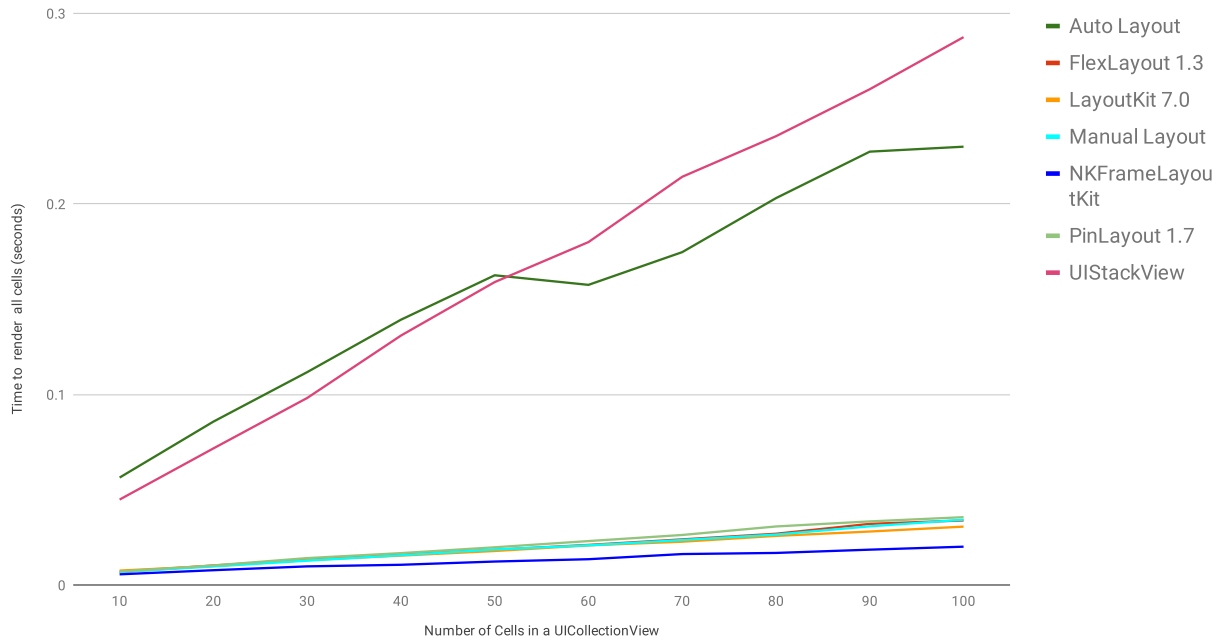
Number of Cells in a UICollectionView	10	20	30	40	50	60	70	80	90	100
Auto Layout	0.1574021237	0.2174940109	0.2970298052	0.3852070093	0.4707060099	0.5535988092	0.6445963621	0.7296735764	0.8188040257	0.9016932487
FlexLayout 1.3	0.02305261384	0.03240940262	0.04124835966	0.05009123683	0.05940350364	0.06835598946	0.07715529662	0.08635273576	0.09544619647	0.1043748021
LayoutKit 7.0	0.02794247866	0.03881072081	0.04849385648	0.05924754283	0.07011614641	0.08023521532	0.09080533187	0.102218616	0.1120846801	0.1229767667
Manual Layout	0.02257689105	0.03157693892	0.04003664494	0.04888195651	0.0576839447	0.06649943441	0.07485141072	0.08420000474	0.092215939	0.1022211075
NotAutoLayout	0.0201452136	0.02489716251	0.02981470262	0.03473988895	0.03986770373	0.04498627392	0.04950242951	0.05474115672	0.05977135546	0.06455412507
PinLayout 1.7	0.02249663671	0.02985510052	0.03737246542	0.04498323662	0.05299694287	0.06092307842	0.06804018812	0.07567408252	0.08317886862	0.09011560672
UIStackView	0.1788310011	0.2952218294	0.4140918016	0.5303429604	0.6509328365	0.7670572281	0.885567379	0.9990485907	1.119390225	1.242037606

iPhone 5



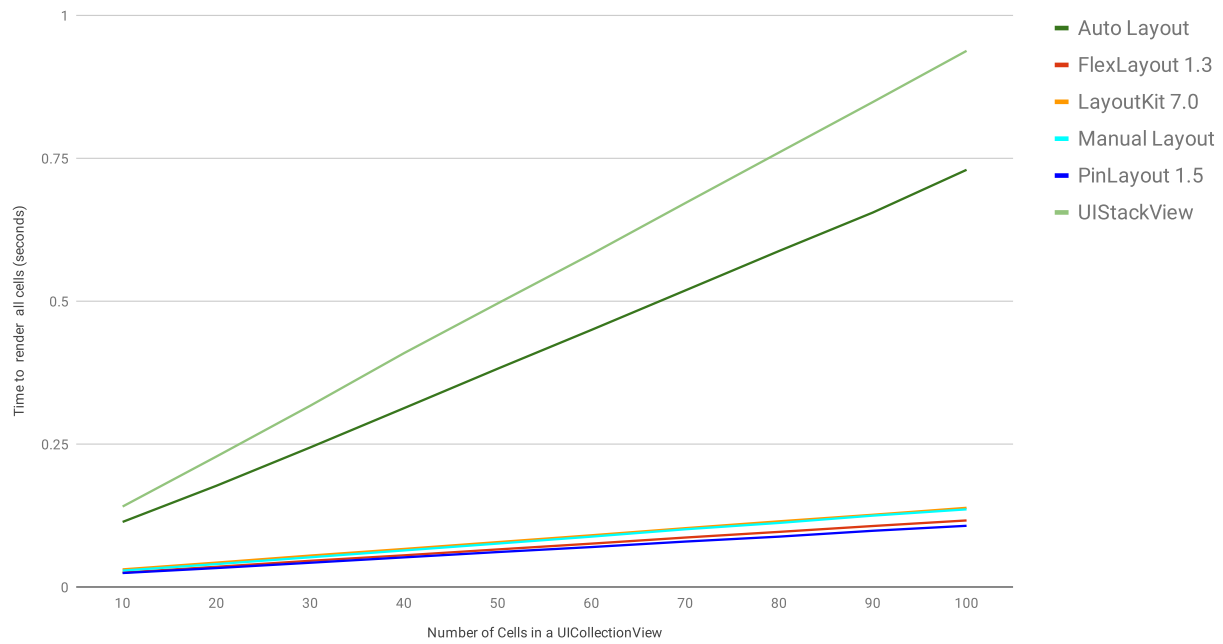
Number of Cells in a UICollectionView	10	20	30	40	50	60	70	80	90	100
Auto Layout	0.2492121935	0.4066583633	0.5762863874	0.7442026138	0.9238960028	1.102060628	1.259462619	1.437069011	1.666049647	1.773968196
FlexLayout 1.3	0.0488337562	0.0690348625	0.0911559462	0.1117752128	0.1323461086	0.1530022962	0.1745651364	0.1959148447	0.2168028116	0.2378201962
LayoutKit 7.0	0.0546980343	0.0748199394	0.0964579148	0.118467225	0.1409666538	0.1620607206	0.1834686597	0.2048873901	0.2268234015	0.2515049934
Manual Layout	0.0451858613	0.0635282844	0.0819596969	0.1005084991	0.1200240056	0.1387403607	0.1564421654	0.1759038568	0.1946903467	0.2121596098
NotAutoLayout										
PinLayout 1.6	0.0432314177	0.0567922857	0.0718260918	0.0873030026	0.1028540969	0.1175796588	0.1382471472	0.1487470014	0.1633808272	0.1798535188
UIStackView	0.3518372059	0.5788460493	0.8131763935	1.045354009	1.276037216	1.504909801	1.74704659	1.98597157	2.222073388	2.449183798

iOS 12 vs iOS 11



Number of Cells in a UICollectionView	10	20	30	40	50	60	70	80	90	100
Auto Layout	0.05642504162	0.08577657735	0.1117407746	0.1392557472	0.1625642606	0.175408663	0.1747241815	0.2030611753	0.2274444103	0.2300469637
FlexLayout 1.3	0.00685712405	0.01028005931	0.01326019827	0.01602358477	0.01852515225	0.02108325313	0.02399322245	0.02693957718	0.03212914988	0.03391139507
LayoutKit 7.0	0.00761181838	0.01000684977	0.01307518761	0.01546665522	0.01788172977	0.02084547281	0.02275864915	0.02581169361	0.02810380525	0.03067714518
Manual Layout	0.00683730232	0.00977669526	0.01280159735	0.01569763944	0.01869698807	0.02082874337	0.02366024945	0.02649722601	0.03082532955	0.03431470791
NKFrameLayoutKit	0.00564660584	0.00780285606	0.00982213137	0.01065293271	0.0123532981	0.01357465177	0.01628025693	0.01686721047	0.01858717424	0.02015030146
PinLayout 1.7	0.00714439068	0.01031774958	0.01415874421	0.01676984231	0.01982745704	0.02309548042	0.02629556717	0.03075982946	0.03341626326	0.03563162787
UIStackView	0.04487709377	0.07172185185	0.09818055413	0.1309265196	0.1589958668	0.1799960136	0.2142620087	0.2355556011	0.2602059841	0.2875368118

iPod Touch



Number of Cells in a UICollectionView	10	20	30	40	50	60	70	80	90	100
Auto Layout	0.1139863067	0.1772184968	0.2442318201	0.3129205704	0.3819962263	0.4498817444	0.5188412189	0.5878521919	0.655121398	0.7298674107
FlexLayout 1.3	0.0254359602	0.0355008676	0.0459637154	0.0555393758	0.0658472031	0.0759932313	0.0866403480	0.0965649214	0.1068058372	0.1165642076
LayoutKit 7.0	0.0309684276	0.0428218742	0.0551191442	0.0667102019	0.0786784612	0.0906210839	0.1030452728	0.1150432295	0.1265083849	0.1386504918
Manual Layout	0.0288711275	0.0401819992	0.0521018624	0.0640941560	0.0760954277	0.0882385869	0.1010881186	0.1122068829	0.1249659061	0.1359717548
NotAutoLayout										
PinLayout 1.5	0.0245804961	0.0332578728	0.0425708691	0.0519576907	0.0612701808	0.0700091520	0.0796112188	0.0882360637	0.0984654534	0.1072051048
UIStackView	0.1409096122	0.2283685923	0.3171825886	0.409114027	0.4962064028	0.5824635744	0.6716333866	0.7601339817	0.848356986	0.9379534245