Timing tests with supplied sample data set:

sample = 1, length = 10, n = 2
 r = 1, time = .004742191
 r = 5, time = .005194572
 r = 10, time = .006051679
 r = 15, time = .006171463
 r = 20, time = .007244340
 r = 25, time = .016308884
 r = 30, time = .015892993
 r = 35, time = .027987260
 r = 40, time = .014423520
 r = 45, time = .014228023
 r = 50, time = .008935736
sample = 2, length = 80, n = 1
 r = 1, time = .009869201
 r = 5, time = .016364495
 r = 10, time = .024686091
 r = 15, time = .021042588
 r = 20, time = .009786742
 r = 25, time = .010023799
 r = 30, time = .014866460
 r = 35, time = .016621948
 r = 40, time = .017048504
 r = 45, time = .018533366
 r = 50, time = .018156162
sample = 3, length = 33, n = 3
 r = 1, time = .011176003
 r = 5, time = .011669308
 r = 10, time = .013718477
 r = 15, time = .014337434
 r = 20, time = .025288245
 r = 25, time = .021838501
 r = 30, time = .019670784
 r = 35, time = .010402495
 r = 40, time = .009916581
 r = 45, time = .020981805
 r = 50, time = .025311142
sample = 4, length = 150, n = 4
 r = 1, time = .015506009
 r = 5, time = .033932822
 r = 10, time = .019777352
 r = 15, time = .019379638
 r = 20, time = .023812934
 r = 25, time = .022870050
 r = 30, time = .024176027
 r = 35, time = .034890117
 r = 40, time = .022466200
 r = 45, time = .022029969
 r = 50, time = .023973434
sample = 5, length = 750, n = 5
 r = 1, time = .045750269

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            r = 5, time = .035414236
            r = 10, time = .043489432
            r = 15, time = .041422946
            r = 20, time = .041453628
            r = 25, time = .042623418
            r = 30, time = .040360453
            r = 35, time = .049900376
            r = 40, time = .049088568
            r = 45, time = .047210709
            r = 50, time = .063662087
sample = 6, length = 3000, n = 1
            r = 1, time = .131830705
            r = 5, time = .156427177
            r = 10, time = .100243716
            r = 15, time = .099028392
            r = 20, time = .095449080
            r = 25, time = .132729816
            r = 30, time = .211121262
            r = 35, time = .110480522
            r = 40, time = .147184076
            r = 45, time = .117151461
            r = 50, time = .111058106
sample = 7, length = 2000, n = 3
            r = 1, time = .068408596
            r = 5, time = .068453436
            r = 10, time = .098130998
            r = 15, time = .159349997
            r = 20, time = .127912648
            r = 25, time = .113744984
            r = 30, time = .088264461
            r = 35, time = .108471502
            r = 40, time = .092980562
            r = 45, time = .098481249
            r = 50, time = .110756337
sample = 8, length = 2000, n = 7
            r = 1, time = .069256522
            r = 5, time = .075904865
            r = 10, time = .078808439
            r = 15, time = .104734165
            r = 20, time = .106430279
            r = 25, time = .080070731
            r = 30, time = .086391069
            r = 35, time = .112286350
            r = 40, time = .153927265
            r = 45, time = .091627885
            r = 50, time = .100662774
sample = 9, length = 40000, n = 8
            r = 1, time = 1.497303187
            r = 5, time = 1.521070965
            r = 10, time = 1.434095105
            r = 15, time = 1.775638337
            r = 20, time = 2.094891193
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        r = 25, time = 1.800660857
        r = 30, time = 1.403292577
        r = 35, time = 1.371465055
        r = 40, time = 1.581130343
        r = 45, time = 1.395838379
        r = 50, time = 1.754174770
sample = 10, length = 451255, n = 10
        r = 1, time = 18.592511832
        r = 5, time = 22.458360177
        r = 10, time = 18.956795848
        r = 15, time = 19.893941350
        r = 20, time = 18.384538106
        r = 25, time = 20.510924132
        r = 30, time = 18.904073513
        r = 35, time = 17.352239031
        r = 40, time = 15.527791166
        r = 45, time = 14.028556525
        r = 50, time = 13.577540501
sample = 11, length = 500000, n = 10
        r = 1, time = 15.998205986
        r = 5, time = 23.263054369
        r = 10, time = 21.987781282
        r = 15, time = 20.439184861
        r = 20, time = 18.427324706
        r = 25, time = 18.260753633
        r = 30, time = 18.250178394
        r = 35, time = 16.628186737
        r = 40, time = 16.121395081
        r = 45, time = 17.606764279
        r = 50, time = 15.129820672
sample = 12, length = 2, n = 1
        r = 1, time = .009895332
        r = 5, time = .012306308
        r = 10, time = .015219846
        r = 15, time = .013582954
        r = 20, time = .016266190
        r = 25, time = .014750256
        r = 30, time = .013915564
        r = 35, time = .012962852
        r = 40, time = .021418420
        r = 45, time = .022515829
        r = 50, time = .015596050
sample = 13, length = 1, n = 1
        r = 1, time = .008110762
        r = 5, time = .011837558
        r = 10, time = .012198916
        r = 15, time = .014653112
        r = 20, time = .012741976
        r = 25, time = .012620165
        r = 30, time = .015303594
        r = 35, time = .014784458
        r = 40, time = .017486038
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r = 45, time = .016466120
r = 50, time = .016094315

For sample 9, n is also changed with same data:

sample = 9, length = 40000, n = 1, r = 1, time = 1.343617791
sample = 9, length = 40000, n = 1, r = 5, time = 1.781015616
sample = 9, length = 40000, n = 1, r = 10, time = 1.275183055
sample = 9, length = 40000, n = 1, r = 15, time = 1.346978277
sample = 9, length = 40000, n = 1, r = 20, time = 1.462136339
sample = 9, length = 40000, n = 1, r = 25, time = 1.496101429
sample = 9, length = 40000, n = 1, r = 30, time = 1.308908064
sample = 9, length = 40000, n = 1, r = 35, time = 1.271434405
sample = 9, length = 40000, n = 1, r = 40, time = 1.436421154
sample = 9, length = 40000, n = 1, r = 45, time = 1.316610066
sample = 9, length = 40000, n = 1, r = 50, time = 1.710855812
sample = 9, length = 40000, n = 2, r = 1, time = 1.205712273
sample = 9, length = 40000, n = 2, r = 5, time = 1.424519261
sample = 9, length = 40000, n = 2, r = 10, time = 1.222259004
sample = 9, length = 40000, n = 2, r = 15, time = 1.166292579
sample = 9, length = 40000, n = 2, r = 20, time = 1.139323979
sample = 9, length = 40000, n = 2, r = 25, time = 1.137780809
sample = 9, length = 40000, n = 2, r = 30, time = 1.157670071
sample = 9, length = 40000, n = 2, r = 35, time = 1.375721471
sample = 9, length = 40000, n = 2, r = 40, time = 1.364433171
sample = 9, length = 40000, n = 2, r = 45, time = 1.244458299
sample = 9, length = 40000, n = 2, r = 50, time = 1.209225632
sample = 9, length = 40000, n = 3, r = 1, time = 1.594615080
sample = 9, length = 40000, n = 3, r = 5, time = 1.718116202
sample = 9, length = 40000, n = 3, r = 10, time = 1.653558125
sample = 9, length = 40000, n = 3, r = 15, time = 1.295742904
sample = 9, length = 40000, n = 3, r = 20, time = 1.378670437
sample = 9, length = 40000, n = 3, r = 25, time = 1.514232305
sample = 9, length = 40000, n = 3, r = 30, time = 1.602757159
sample = 9, length = 40000, n = 3, r = 35, time = 1.881487898
sample = 9, length = 40000, n = 3, r = 40, time = 1.703510903
sample = 9, length = 40000, n = 3, r = 45, time = 1.418907171
sample = 9, length = 40000, n = 3, r = 50, time = 1.312783507
sample = 9, length = 40000, n = 4, r = 1, time = 1.301863558
sample = 9, length = 40000, n = 4, r = 5, time = 1.330567486
sample = 9, length = 40000, n = 4, r = 10, time = 1.252172403
sample = 9, length = 40000, n = 4, r = 15, time = 1.223165544
sample = 9, length = 40000, n = 4, r = 20, time = 1.255363440
sample = 9, length = 40000, n = 4, r = 25, time = 1.207283148
sample = 9, length = 40000, n = 4, r = 30, time = 1.608741681
sample = 9, length = 40000, n = 4, r = 35, time = 1.629589440
sample = 9, length = 40000, n = 4, r = 40, time = 1.398752078
sample = 9, length = 40000, n = 4, r = 45, time = 1.263978419
sample = 9, length = 40000, n = 4, r = 50, time = 1.430578950
sample = 9, length = 40000, n = 5, r = 1, time = 1.271588804

sample = 9, length = 40000, n = 5, r = 5, time = 1.257141741
sample = 9, length = 40000, n = 5, r = 10, time = 1.208119984
sample = 9, length = 40000, n = 5, r = 15, time = 1.344937249
sample = 9, length = 40000, n = 5, r = 20, time = 1.241730754
sample = 9, length = 40000, n = 5, r = 25, time = 1.285083802
sample = 9, length = 40000, n = 5, r = 30, time = 1.223733703
sample = 9, length = 40000, n = 5, r = 35, time = 1.167187549
sample = 9, length = 40000, n = 5, r = 40, time = 1.248071182
sample = 9, length = 40000, n = 5, r = 45, time = 1.214460797
sample = 9, length = 40000, n = 5, r = 50, time = 1.204075020
sample = 9, length = 40000, n = 6, r = 1, time = 1.629616769
sample = 9, length = 40000, n = 6, r = 5, time = 1.478165507
sample = 9, length = 40000, n = 6, r = 10, time = 1.435373505
sample = 9, length = 40000, n = 6, r = 15, time = 1.689971056
sample = 9, length = 40000, n = 6, r = 20, time = 1.274887374
sample = 9, length = 40000, n = 6, r = 25, time = 1.585985705
sample = 9, length = 40000, n = 6, r = 30, time = 1.545408122
sample = 9, length = 40000, n = 6, r = 35, time = 1.260055649
sample = 9, length = 40000, n = 6, r = 40, time = 1.297683067
sample = 9, length = 40000, n = 6, r = 45, time = 1.324295895
sample = 9, length = 40000, n = 6, r = 50, time = 1.376955681
sample = 9, length = 40000, n = 7, r = 1, time = 1.696616521
sample = 9, length = 40000, n = 7, r = 5, time = 1.393787439
sample = 9, length = 40000, n = 7, r = 10, time = 1.258024249
sample = 9, length = 40000, n = 7, r = 15, time = 1.191619754
sample = 9, length = 40000, n = 7, r = 20, time = 1.171378339
sample = 9, length = 40000, n = 7, r = 25, time = 1.224157511
sample = 9, length = 40000, n = 7, r = 30, time = 1.245545565
sample = 9, length = 40000, n = 7, r = 35, time = 1.413749556
sample = 9, length = 40000, n = 7, r = 40, time = 1.374827795
sample = 9, length = 40000, n = 7, r = 45, time = 1.223895076
sample = 9, length = 40000, n = 7, r = 50, time = 1.253226282
sample = 9, length = 40000, n = 8, r = 1, time = 1.133162764
sample = 9, length = 40000, n = 8, r = 5, time = 1.174430117
sample = 9, length = 40000, n = 8, r = 10, time = 1.159837961
sample = 9, length = 40000, n = 8, r = 15, time = 1.191268480
sample = 9, length = 40000, n = 8, r = 20, time = 1.177775829
sample = 9, length = 40000, n = 8, r = 25, time = 1.167444887
sample = 9, length = 40000, n = 8, r = 30, time = 1.210771028
sample = 9, length = 40000, n = 8, r = 35, time = 1.404235566
sample = 9, length = 40000, n = 8, r = 40, time = 1.347262067
sample = 9, length = 40000, n = 8, r = 45, time = 1.161971986
sample = 9, length = 40000, n = 8, r = 50, time = 1.190923797
sample = 9, length = 40000, n = 9, r = 1, time = 1.682368931
sample = 9, length = 40000, n = 9, r = 5, time = 1.312895452
sample = 9, length = 40000, n = 9, r = 10, time = 1.310143826
sample = 9, length = 40000, n = 9, r = 15, time = 1.215038921
sample = 9, length = 40000, n = 9, r = 20, time = 1.204546108
sample = 9, length = 40000, n = 9, r = 25, time = 1.207548876
sample = 9, length = 40000, n = 9, r = 30, time = 1.190235422
sample = 9, length = 40000, n = 9, r = 35, time = 1.227145508
sample = 9, length = 40000, n = 9, r = 40, time = 1.212262853

sample = 9, length = 40000, n = 9, r = 45, time = 1.165910891
sample = 9, length = 40000, n = 9, r = 50, time = 1.162138297
sample = 9, length = 40000, n = 10, r = 1, time = 1.164392756
sample = 9, length = 40000, n = 10, r = 5, time = 1.441633624
sample = 9, length = 40000, n = 10, r = 10, time = 1.189694262
sample = 9, length = 40000, n = 10, r = 15, time = 1.369709279
sample = 9, length = 40000, n = 10, r = 20, time = 1.557014627
sample = 9, length = 40000, n = 10, r = 25, time = 1.759526547
sample = 9, length = 40000, n = 10, r = 30, time = 1.219209208
sample = 9, length = 40000, n = 10, r = 35, time = 1.238404367
sample = 9, length = 40000, n = 10, r = 40, time = 1.305097972
sample = 9, length = 40000, n = 10, r = 45, time = 1.213883763
sample = 9, length = 40000, n = 10, r = 50, time = 1.414972809

Two plots of n, r and time for the test above: