dj 36 11 full 7.3 0 3 0 -100 11 14 11 12 -d dj 36 11 ring-7.3 24 3 3 0 30 18 12 -d dj 36 11 grid 4.5 21 3 3 0 37 14 12 -d dj 36 11 grid 4.5 21 3 3 0 37 14 12 -d dj 40 36 11 t.borisoutal5.4 24 3 3 0 37 16 12 2 plw 7 7 full 7.3 0	Benchmark	g	d	layout	s basic	s sabre	s look	swap (%)	d basic	d swap	d look	d (%)
dj 36 11 full.73 0 3 0 -100 11 14 11 12 -2 dj 36 11 ring.7.3 24 3 3 0 30 18 12 -2 dj 36 11 grid.93 9 3 0 -100 21 17 11 1 2 dj 36 11 grid.4.5 21 3 3 0 37 14 12 2 dj 36 11 thorizontal.5.4 24 3 3 0 37 16 12 2 2 2 2 2 2 3 3 0 37 16 12 2 2 2 3 0 37 16 12 2	di	36	11	full_10_2	0	0	0	nan	11	11	11	0
dj 36												-21.43
dj 36 11 ring.7.3 24 3 3 0 30 18 12 2 dj 36 11 grid 4.5 21 3 3 0 37 14 12 2 dj 36 11 thorizontal 5.4 24 3 3 0 37 16 12 2 dj 36 11 thorizontal 5.4 24 3 3 0 37 16 12 2 dj 4 16 12 2 2 3 0 37 17 12 2 2 2 2 3 0 37 17 12 2 2 2 2 2 2 12 2 2 2 2 2 2 12 2 2 2 2 1 2 2 2 2 2 2 1 2 2 2 2 2 2 2 2 2 </td <td></td> <td></td> <td></td> <td></td> <td>36</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-29.41</td>					36							-29.41
dj 36 11 grid.4.5 21 3 3 0 -100 21 17 11 12 dj 36 11 lme.5.4 36 6 6 0 40 17 14 2 dj 36 11 t.borisontal 5 4 24 3 3 0 37 16 12 -dj dj 36 11 t.borisontal 5 4 24 3 3 0 37 16 12 -dj gbz 7 7 full.10.2 0 0 0 nan 7 7 7 7 7 10 8 2 11 8 1 2 10 8 1 2 2 2 10 8 1 2 10 8 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		36	11	~	24	3		0	30	18	12	-33.33
dj 36 11 grid 4.5 21 3 3 0 37 14 12 4 dj 36 11 lime 5 4 36 6 6 0 40 17 14 4 dj 36 11 t. tvertical 5.4 24 3 3 0 37 16 12 2		36	11	~	9	3	0	-100	21	17	11	-35.29
dj 36 11 t. t.vertical.5.4 24 3 3 0 37 16 12 chz chz 7 7 full.1.0.2 0 0 0 nan 7 11 8 8 gbz 7 7 ring.4.3 0 0 9 nsn 10 7 7 10 8 2 gbz 7 7 t. brizzontal.5.4 9 3 6 100 16 10 9 1 6 10 10 7 9 2 2 12 12 10 <td></td> <td>36</td> <td>11</td> <td>$grid_4_5$</td> <td>21</td> <td>3</td> <td>3</td> <td>0</td> <td>37</td> <td>14</td> <td>12</td> <td>-14.29</td>		36	11	$grid_4_5$	21	3	3	0	37	14	12	-14.29
gbz 7 7 full.102 0 0 0 0 0 0 0 0 7 7 7 0 1 1 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1		36	11	$line_5_4$	36	6	6	0	40	17	14	-17.65
ghz 7 7 full.1.02 0 0 0 0 nan 7 7 7 7 7 7 7 0 ghz 7 7 full.1.02 0 0 0 0 nan 7 7 7 7 7 7 7 0 ghz 7 7 full.7.3 0 0 0 0 0 nan 7 7 7 7 7 7 0 ghz 7 7 7 ing.1.02 0 3 3 9 200 7 10 8 - 2 ghz 7 7 7 ing.7.3 6 3 0 9 nan 7 7 7 7 10 8 - 2 ghz 7 7 7 grid.9.3 6 3 6 10 0 13 10 8 - 2 ghz 7 7 7 grid.9.3 6 3 6 10 0 13 10 7 8 - 2 ghz 7 7 7 grid.9.3 6 3 6 10 0 13 10 7 8 - 2 ghz 7 7 7 grid.9.3 6 3 0 9 nan 10 7 8 8 - 2 ghz 7 7 7 time.5.4 0 9 18 10 0 7 13 9 - 2 ghz 7 7 7 time.5.4 0 9 18 10 0 7 13 9 - 2 ghz 7 7 7 t.brizzontal.5.4 9 3 6 10 0 16 10 9 9 - 2 graphstate 50 22 full.7.3 0 0 0 0 nan 16 7 9 2 graphstate 50 22 full.7.3 0 0 0 0 0 nan 22 22 22 22 22 22 22 graphstate 50 22 grid.9.3 15 3 6 10 0 37 32 25 20 - 2 graphstate 50 22 grid.9.3 15 3 6 10 0 37 32 20 2 graphstate 50 22 grid.9.3 15 3 6 10 0 37 32 20 2 graphstate 50 22 grid.9.3 15 3 6 10 0 37 32 20 2 graphstate 50 22 grid.9.3 15 3 6 10 0 37 32 20 2 graphstate 50 22 grid.5.4 12 9 12 33.33 32 25 20 1 graphstate 50 22 grid.5.4 12 9 12 33.33 32 25 21 graphstate 50 22 grid.9.3 15 3 6 10 0 37 32 20 2 graphstate 50 22 grid.9.3 15 3 8 9 00 44 25 20 2 graphstate 50 22 grid.9.3 15 3 8 9 00 44 25 20 2 graphstate 50 22 grid.9.3 15 3 8 9 00 44 25 20 2 graphstate 50 22 grid.9.3 15 3 8 9 00 44 25 20 2 graphstate 50 22 grid.9.3 15 3 9 00 44 25 20 2 graphstate 50 22 grid.9.3 15 15 3 9 00 10 10 10 10 10 10 10 10 10 10 10 10	dj	36	11	$t_{borizontal_5_4}$	24	3	3	0	37	16	12	-25
gbz 7 7 7 full.1-3 0 0 0 0 nan 7 7 7 7 0 gbz 7 7 ring.10.2 0 3 9 20 0 7 10 8 - gbz 7 7 7 ring.7-3 0 0 0 9 nan 7 7 7 10 8 - gbz 7 7 7 grid.9-3 6 3 6 100 13 10 7 8 1 gbz 7 7 7 grid.4-5 3 0 0 9 nan 10 7 7 8 1 gbz 7 7 7 grid.4-5 3 0 0 9 nan 10 7 8 1 gbz 7 7 7 grid.4-5 3 0 0 9 nan 10 7 8 1 gbz 7 7 7 line.5-4 0 9 18 100 7 13 9 - gbz 7 7 7 line.5-4 9 0 6 nan 10 7 8 1 gbz 7 7 7 thorizontal 5 4 9 3 6 100 16 10 9 - gbz 7 7 7 thorizontal 5 4 9 0 6 nan 16 7 9 2 graphstate 50 22 full.10 2 0 0 3 0 -100 22 22 22 22 22 22 22 22 22 22 22 22 2	dj	36	11	$t_{vertical_5_4}$	24	3	3	0	37	17	12	-29.41
ghz 7 7 7 ring J0.2 0 3 3 9 200 7 7 10 8 8 7 ghz 7 7 ring J0.2 0 0 9 nam 7 7 8 1 ghz 7 7 grid J9.3 6 3 0 0 9 nam 10 7 8 1 ghz 7 7 grid J9.3 6 3 0 9 nam 10 7 8 1 ghz 7 7 grid J9.3 6 3 0 9 nam 10 7 8 1 ghz 7 7 ghz 7 grid J9.3 6 0 3 6 100 16 10 7 13 9 7 ghz 7 7 therical.5.4 9 3 6 100 16 10 10 9 ghz 7 7 therical.5.4 9 0 6 nam 16 7 9 2 graphstate 50 22 full J0.2 0 3 0 -100 22 22 22 22 20 graphstate 50 22 full J0.2 12 6 9 50 32 25 20 2 graphstate 50 22 ring J0.2 12 6 9 50 32 25 20 2 graphstate 50 22 grid J0.3 15 3 6 100 37 32 20 2 graphstate 50 22 grid J0.3 15 3 6 100 37 32 20 2 graphstate 50 22 grid J0.2 12 6 9 50 32 25 20 2 graphstate 50 22 grid J0.2 12 6 9 50 32 25 20 2 graphstate 50 22 grid J0.2 12 6 9 50 32 25 20 2 graphstate 50 22 grid J0.2 12 9 9 12 33.33 32 20 2 graphstate 50 22 grid J0.3 15 3 6 100 37 32 20 2 graphstate 50 22 grid J0.3 15 3 6 100 37 32 20 2 graphstate 50 22 grid J0.2 12 9 9 12 33.33 32 20 2 graphstate 50 22 grid J0.3 15 3 6 100 37 32 20 2 graphstate 50 22 grid J0.3 15 3 6 100 37 32 20 2 graphstate 50 22 therical.5.4 12 9 12 33.33 32 22 20 2 graphstate 50 22 therical.5.4 12 9 50 35 25 20 2 graphstate 50 22 therical.5.4 12 9 12 33.33 32 22 20 2 graphstate 50 22 therical.5.4 12 6 9 50 35 25 20 2 graphstate 50 22 therical.5.4 12 6 9 50 35 25 20 2 graphstate 50 22 therical.5.4 12 6 9 50 35 25 20 2 graphstate 50 22 therical.5.4 12 6 9 50 35 25 20 2 graphstate 50 22 therical.5.4 12 6 9 50 35 25 20 2 graphstate 50 22 therical.5.4 12 6 9 50 35 25 20 2 graphstate 50 22 therical.5.4 12 6 9 50 35 25 20 2 graphstate 50 22 therical.5.4 12 6 9 50 35 25 20 2 graphstate 50 22 therical.5.4 12 6 9 50 35 25 20 2 graphstate 50 22 therical.5.4 12 6 9 50 35 25 20 2 graphstate 50 22 therical.5.4 12 6 9 50 35 25 20 2 graphstate 50 22 therical.5.4 12 6 9 50 35 25 20 2 graphstate 50 22 therical.5.4 12 6 9 50 35 25 20 2 20 2 graphstate 50 22 therical.5.4 12 6 9 50 35 25 20 2 20 2 20 35 20 2 20 2 20 35 20 2 20 2	ghz	7	7		0	0	0	nan	7	7	7	0
ghz 7 7 7 ing.7.3 0 0 0 9 nan 7 7 7 8 1 ghz 2 7 7 grid.9.3 6 3 6 100 13 10 8 - 2 ghz 7 7 7 grid.4.5 3 3 0 9 nan 10 7 7 8 1 ghz 7 7 7 line.5.4 0 9 18 100 7 13 10 9 - 2 graphstate 7 7 7 thorizontal.5.4 9 0 6 nan 16 7 9 2 graphstate 50 22 full.10.2 0 0 3 0 - 100 22 22 22 22 0 graphstate 50 22 ring.7.3 6 6 6 9 50 24 22 22 20 graphstate 50 22 ring.7.3 6 6 6 9 50 24 22 20 - 2 graphstate 50 22 grid.9.3 15 3 6 100 37 32 25 20 - 2 graphstate 50 22 grid.9.3 15 3 6 100 37 32 25 20 - 2 graphstate 50 22 grid.9.3 15 3 6 100 37 32 25 20 - 2 graphstate 50 22 grid.9.3 15 3 6 100 37 32 25 20 - 2 graphstate 50 22 grid.5.4 12 9 12 33.33 32 25 20 - 2 graphstate 50 22 grid.5.4 12 9 12 33.33 32 25 20 - 2 graphstate 50 22 grid.5.4 12 6 9 50 35 22 2 thorizontal.5.4 12 6 9 50 35 22 2 thorizontal.5.4 12 6 9 50 35 22 2 0 - 2 graphstate 50 22 thorizontal.5.4 12 6 9 50 35 22 20 - 2 graphstate 50 22 full.10.2 0 0 0 nan 72 72 72 72 0 portfolioquae 195 72 full.7.3 0 0 0 nan 72 72 72 72 0 portfolioquae 195 72 grid.3 120 51 80 66 87 31.82 255 166 110 - 2 portfolioquae 195 72 grid.4.5 81 42 6 9 64.29 20 138 104 - 2 portfolioquae 195 72 grid.4.5 81 42 6 9 64.29 20 138 104 - 2 portfolioquae 195 72 grid.4.5 81 42 6 9 64.29 20 138 104 - 2 portfolioquae 195 72 grid.4.5 81 42 6 9 64.29 20 138 104 - 2 portfolioquae 195 72 grid.4.5 81 42 6 9 64.29 20 138 104 - 2 portfolioquae 195 72 grid.4.5 81 42 6 9 64.29 20 138 104 - 2 portfolioquae 195 72 grid.4.5 81 42 6 9 64.29 20 138 104 - 2 portfolioquae 195 72 thorizontal.5.4 117 66 87 45 252 179 110 - 2 portfolioquae 195 72 grid.4.5 81 40 66 93 40.91 255 166 100 - 2 portfolioquae 195 72 thorizontal.5.4 117 60 87 45 252 179 110 - 2 portfolioquae 195 72 thorizontal.5.4 117 60 87 45 252 179 110 - 2 portfolioquae 195 72 thorizontal.5.4 117 60 87 45 252 179 110 - 2 portfolioquae 195 72 thorizontal.5.4 117 60 87 45 252 179 110 - 2 portfolioquae 195 72 thorizontal.5.4 117 60 87 45 252 179 110 - 2 portfolioquae 195 72 thorizontal.5.4 117 60 87 45 252 179 110 - 2 portfolioquae 195 72 thorizontal.5.4 117 60 87 45 252 179	${ m ghz}$	7	7		0	0	0		7	7	7	0
ghz 7 7 7 grid.9.3 6 6 3 6 100 13 10 8 2 ghz 7 7 7 grid.4.5 3 0 9 9 nan 10 7 8 1 ghz 7 7 1 line.5.4 0 9 18 100 7 13 9 - 13 1 10 1 7 8 1 ghz 7 7 7 line.5.4 9 3 6 100 16 10 9 - 13 1 9 - 13 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	~		7		0	3		200		10	8	-20
gbz 7 7 7 girid.4.5 3 0 9 9 nan 10 7 8 1 gbz 7 7 line.5.4 0 9 9 18 100 7 13 9 - 2 gbz 7 7 7 line.5.4 9 3 6 100 16 10 9 - 2 gbz 7 7 7 t.borizontal.5.4 9 3 6 100 16 10 9 - 2 graphstate 50 22 full.10.2 0 3 0 - 100 22 22 22 22 22 graphstate 50 22 full.10.2 12 6 9 50 32 25 20 - 2 graphstate 50 22 full.17.3 0 0 0 0 nan 22 22 22 22 22 0 graphstate 50 22 ring.10.2 12 6 9 50 32 25 20 - 2 graphstate 50 22 ring.10.2 12 6 9 50 32 25 20 - 2 graphstate 50 22 grid.9.3 15 3 6 100 37 32 20 - 2 graphstate 50 22 grid.9.3 15 3 6 100 37 32 20 - 2 graphstate 50 22 grid.9.3 15 3 6 100 37 32 20 - 2 graphstate 50 22 grid.9.4.5 18 3 9 200 41 25 20 2 graphstate 50 22 grid.9.3 15 3 6 100 37 32 20 - 2 graphstate 50 22 grid.9.3 15 3 6 100 37 32 20 - 2 graphstate 50 22 grid.9.3 15 3 6 100 37 32 20 - 2 graphstate 50 22 t.borizontal.5.4 12 6 9 50 35 25 20 - 2 graphstate 50 22 t.borizontal.5.4 12 6 9 50 35 25 20 - 2 graphstate 50 22 t.borizontal.5.4 12 6 9 50 35 25 20 - 2 graphstate 50 22 t.borizontal.5.4 12 6 9 50 35 25 20 - 2 graphstate 50 22 t.borizontal.5.4 12 6 9 50 35 25 20 - 2 graphstate 50 22 t.borizontal.5.4 12 6 9 50 35 25 20 - 2 graphstate 50 22 t.borizontal.5.4 12 6 9 50 35 25 20 - 2 graphstate 50 22 t.borizontal.5.4 12 6 9 50 35 25 20 - 2 graphstate 50 22 t.borizontal.5.4 12 6 9 50 35 25 20 - 2 graphstate 50 22 t.borizontal.5.4 12 6 9 50 35 25 20 - 2 graphstate 50 22 t.borizontal.5.4 11 6 9 50 33 22 25 20 - 2 portfolioqaoa 195 72 full.7.3 0 0 0 nan 72 72 72 72 0 portfolioqaoa 195 72 full.7.3 0 0 0 nan 72 72 72 72 0 portfolioqaoa 195 72 full.7.3 0 0 0 nan 72 72 72 72 0 portfolioqaoa 195 72 full.7.3 0 0 0 nan 72 72 72 72 72 72 72 72 72 72 72 72 72	~		7	~	_	_						14.29
ghz 7 7 7 line.5.4 0 9 18 100 7 13 9 - ghz ghz 7 7 t.horizontal.5.4 9 3 6 100 16 10 9 - graphstate 50 22 full.10.2 0 3 0 - 100 22 22 22 22 02 0 graphstate 50 22 full.7.3 0 0 0 0 nan 22 22 22 22 02 0 graphstate 50 22 ring.10.2 12 6 9 50 32 25 20 - graphstate 50 22 grid.4.5 18 3 9 200 41 25 20 - graphstate 50 22 grid.4.5 18 3 9 200 41 25 20 - graphstate 50 22 grid.4.5 18 3 9 200 41 25 20 - graphstate 50 22 grid.4.5 18 3 9 200 41 25 20 - graphstate 50 22 grid.4.5 12 6 9 50 33 32 25 20 - graphstate 50 22 grid.4.5 18 3 9 200 41 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 35 25 20 - graphstate 50 22 thorizontal.5.4 17 6 9 50 50 35 35 25 20 - graphstate 50 22 thorizontal.5.4 17 6 9 50 50 35 35 25 20 50 50 50 35 25 20 50 50 50 50 50 50 50 50 50 50 50 50 50	~			~								-20
ghz 7 7 t. horizontal.5.4 9 3 6 100 16 10 9 -graphstate graphstate 50 22 full.10.2 0 3 0 -100 22 23 23 3 3 3 23 25 20 - 22 22 22 20 - 22 20 - 22 20 - 22 20 - 22 20 - 22 20 -	~					_						14.29
ghz 7 7 7 t.vertical 5.4 9 0 6 6 nan 16 7 9 9 2 graphstate 50 22 full.10.2 0 3 0 -100 22 22 22 22 22 22 22 22 22 22 22 22 2	~				_						-	-30.77
graphstate 50 22 full.10.2 0 3 0 -100 22 22 22 22 22 0 graphstate 50 22 ring.10.2 12 6 9 50 32 25 20 -2 graphstate 50 22 ring.7.3 6 6 6 9 50 32 25 20 -2 graphstate 50 22 grid.4.5 18 3 6 100 37 32 20 -2 graphstate 50 22 grid.4.5 18 3 9 200 37 32 25 20 -2 graphstate 50 22 grid.4.5 18 3 9 200 41 25 20 -2 graphstate 50 22 grid.4.5 18 3 9 200 41 25 20 -2 graphstate 50 22 line.5.4 12 9 112 33.33 32 25 21 -2 graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 -2 graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 -2 graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 -2 graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 -2 graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 -2 graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 -2 graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 -2 graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 -2 graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 -2 graphstate 50 22 thorizontal.5.4 12 6 9 50 35 25 20 -2 graphstate 50 22 thorizontal.5.4 12 6 9 50 35 50 35 25 20 -2 graphstate 50 22 thorizontal.5.4 117 60 87 31.82 255 166 110 -2 portfolioqaoa 195 72 grid.4.5 81 42 69 64.29 20 138 104 -2 portfolioqaoa 195 72 grid.4.5 81 42 69 64.29 220 138 104 -2 portfolioqaoa 195 72 line.5.4 117 60 87 41.80 66 93 40.91 255 166 90 -2 portfolioqaoa 195 72 thorizontal.5.4 117 60 87 41.80 60 93 40.91 255 166 90 -2 portfolioqaoa 195 72 line.5.4 117 60 87 41.80 60 93 30.91 255 166 90 -2 portfolioqao 195 72 thorizontal.5.4 117 60 87 41.80 60 93 30.31 82 252 166 110 -2 portfolioqao 310 107 full.7.3 0 48 0 -100 107 170 107 107 107 107 107 107 107	~											-10
graphstate 50 22 full.7.3 0 0 0 0 nan 22 22 22 22 0 graphstate 50 22 ring.10.2 12 6 9 50 32 22 25 20 0 graphstate 50 22 ring.7.3 6 6 6 9 50 24 22 20 0 graphstate 50 22 grid.9.3 15 3 6 100 37 32 20 0 graphstate 50 22 grid.4.5 18 3 9 200 41 25 20 0 graphstate 50 22 line.5.4 12 9 12 33.33 3 2 25 21 0 graphstate 50 22 line.5.4 12 6 9 50 35 25 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	~					_						28.57
graphstate 50 22 ring_10_2 12 66 9 50 32 25 20 2 graphstate 50 22 grid_9_3 15 3 6 100 37 32 25 20 2 graphstate 50 22 grid_9_3 15 3 6 100 37 32 20 2 graphstate 50 22 grid_9_3 15 3 6 100 37 32 20 2 graphstate 50 22 grid_9_5 15 3 6 100 37 32 20 2 graphstate 50 22 line_5_4 12 9 12 33.33 32 25 21 2 graphstate 50 22 line_5_4 12 6 9 50 35 25 20 2 graphstate 50 22 theorizontal_5_4 12 6 9 50 35 25 20 2 graphstate 50 22 theorizontal_5_4 12 6 9 50 35 22 20 2 graphstate 50 22 theorizontal_5_4 12 6 9 50 35 22 20 2 graphstate 50 22 theorizontal_5_4 12 6 9 50 35 22 20 2 graphstate 50 22 theorizontal_5_4 12 6 9 50 35 22 20 2 graphstate 50 22 theorizontal_5_4 12 6 9 50 35 22 20 2 graphstate 50 22 theorizontal_5_4 12 6 9 50 35 22 20 2 graphstate 50 22 theorizontal_5_4 12 6 9 50 35 22 20 2 graphstate 50 22 theorizontal_5_4 12 6 9 50 35 25 20 20 2 graphstate 50 22 theorizontal_5_4 12 6 9 50 35 22 20 2 graphstate 50 22 theorizontal_5_4 12 6 9 50 35 22 20 2 2 graphstate 50 22 theorizontal_5_4 12 6 9 6 87 31.82 255 166 100 2 portfolioqaoa 195 72 ring_10_2 180 66 87 31.82 255 166 100 2 portfolioqaoa 195 72 grid_9_3 96 39 60 76.92 199 157 177 110 2 portfolioqaoa 195 72 grid_4_5 81 42 69 64.29 220 138 104 20 portfolioqaoa 195 72 theorizontal_5_4 117 60 87 45 252 179 110 2 portfolioqaoa 195 72 theorizontal_5_4 117 66 87 31.82 255 166 90 2 portfolioqao 195 72 theorizontal_5_4 117 66 87 31.82 252 166 110 2 portfolioqae 310 107 full_10_2 0 0 0 0 nan 107 107 107 107 0 portfolioqae 310 107 full_10_2 180 0 0 0 nan 107 107 107 107 0 portfolioqae 310 107 full_7_3 0 0 48 0 -100 107 172 107 2 portfolioqae 310 107 full_7_3 0 0 48 0 -100 107 172 107 2 portfolioqae 310 107 full_7_3 0 0 48 0 -100 107 172 107 2 qaoa 95 31 full_7_3 0 0 0 0 nan 31 31 31 31 0 qaoa 95 31 full_7_3 0 0 0 0 0 nan 31 31 31 31 0 qaoa 95 31 full_10_2 0 0 0 0 0 nan 31 31 31 31 0 qaoa 95 31 full_10_2 0 0 0 0 0 nan 38 38 38 0 qaoa 95 31 full_10_2 0 0 0 0 0 nan 38 38 38 0 qaoa 95 31 full_5_3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	U -				-							
graphstate 50 22 ring_7.3 6 6 6 9 50 24 22 20 - graphstate 50 22 grid_9.3 15 3 6 100 37 32 20 - graphstate 50 22 grid_4.5 18 3 9 200 41 25 20 - graphstate 50 22 line_5.4 12 9 12 33.33 32 25 21 - graphstate 50 22 therizontal_5.4 12 6 9 50 35 25 20 - graphstate 50 22 therizontal_5.4 12 6 9 50 35 25 20 - graphstate 50 22 therizontal_5.4 12 6 9 50 35 22 20 - graphstate 50 22 therizontal_5.4 12 6 9 50 35 22 20 - graphstate 50 22 therizontal_5.4 12 6 9 50 35 22 20 - graphstate 50 22 therizontal_5.4 12 6 9 50 35 22 20 - graphstate 50 22 therizontal_5.4 12 6 9 50 35 22 20 - graphstate 50 22 therizontal_5.4 12 6 9 50 35 22 20 - graphstate 50 22 therizontal_5.4 12 6 9 50 35 22 20 - graphstate 50 22 therizontal_5.4 12 6 9 50 35 22 20 - graphstate 50 22 therizontal_5.4 12 6 9 50 35 22 20 - graphstate 50 22 therizontal_5.4 12 6 9 50 35 22 20 - graphstate 50 22 therizontal_5.4 12 6 9 50 35 22 20 - graphstate 50 22 therizontal_5.4 12 6 9 6 6 87 31.82 255 166 110 - graphstate 50 22 therizontal_5.4 117 60 87 45 252 179 110 - graphstate 50 50 50 50 50 50 50 50 50 50 50 50 50	~ -				_	-						
graphstate 50 22 grid.9.3 15 3 6 100 37 32 20 - graphstate 50 22 grid.4.5 18 3 9 200 41 25 20 - graphstate 50 22 line.5.4 12 9 12 33.33 32 25 21 - graphstate 50 22 line.5.4 12 6 9 50 35 25 20 - graphstate 50 22 thorizontal.5.4 12 6 9 50 35 22 20 - graphstate 50 22 tretrical.5.4 12 6 9 50 35 22 20 - graphstate 50 22 tretrical.5.4 12 6 9 50 35 22 20 - graphstate 50 22 tretrical.5.4 12 6 9 50 35 22 20 - graphstate 50 22 tretrical.5.4 12 6 9 50 35 22 20 - graphstate 50 22 tretrical.5.4 12 6 9 50 35 22 20 - graphstate 50 22 tretrical.5.4 12 6 9 50 35 22 20 - graphstate 50 52 tretrical.5.4 12 6 9 50 35 22 20 - graphstate 50 52 5 160 110 2 50 50 50 50 50 50 50 50 50 50 50 50 50				~								-20
graphstate 50 22 grid.4.5 18 3 9 200 41 25 20 - graphstate 50 22 line.5.4 12 9 12 33.33 32 25 21 - graphstate 50 22 t.vertical.5.4 12 6 9 50 35 25 20 - graphstate 50 22 t.vertical.5.4 12 6 9 50 35 25 20 - graphstate 50 22 t.vertical.5.4 12 6 9 50 35 22 20 - portfolioqaoa 195 72 full.10.2 0 0 0 0 nan 72 72 72 72 0 portfolioqaoa 195 72 full.10.2 180 66 87 31.82 255 166 110 - portfolioqaoa 195 72 ring.7.3 120 51 87 70.59 157 177 110 - portfolioqaoa 195 72 grid.9.3 96 39 69 76.92 199 141 121 - portfolioqaoa 195 72 grid.4.5 81 42 69 64.29 220 138 104 - portfolioqaoa 195 72 grid.4.5 81 42 69 64.29 220 138 104 - portfolioqaoa 195 72 t.vertical.5.4 117 60 87 45 252 179 110 - portfolioqaoa 195 72 t.vertical.5.4 117 60 87 45 252 179 110 - portfolioqaoa 195 72 t.vertical.5.4 117 60 87 31.82 252 166 110 - portfolioqaoa 195 72 t.vertical.5.4 117 60 87 31.82 252 166 110 - portfolioqaoa 195 72 t.vertical.5.4 117 60 87 31.82 252 166 110 - portfolioqaoa 195 72 t.vertical.5.4 117 60 87 31.82 252 166 110 - portfolioqaoa 195 72 t.vertical.5.4 117 60 87 31.82 252 166 110 - portfolioqao 310 77 full.0.2 0 0 0 0 nan 107 107 107 107 107 107 107 107 107 107	~ -			~								-9.09
graphstate 50 22 line.5.4 12 9 12 33.33 32 25 21 - graphstate 50 22 t.horizontal.5.4 12 6 9 50 35 25 20 - graphstate 50 22 t.horizontal.5.4 12 6 9 50 35 25 20 - graphstate 50 22 t.horizontal.5.4 12 6 9 50 35 22 20 - graphstate 50 22 t.horizontal.5.4 12 6 9 50 35 22 20 - graphstate 50 22 t.horizontal.5.4 12 6 9 50 35 22 20 - graphstate 50 22 t.horizontal.5.4 12 6 9 50 35 22 20 - graphstate 50 22 t.horizontal.5.4 12 6 9 50 35 22 20 - graphstate 50 22 t.horizontal.5.4 12 6 9 50 35 22 20 1 50 50 1 50 1 50 1 50 1 50 1 50	~ -			9								-37.5
graphstate 50 22 t.horizontal.5.4 12 6 9 50 35 25 20 0 5 0 20 t.vertical.5.4 12 6 9 50 35 22 20 5 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0	~ -			9								-20
graphstate 50 22 t.vertical.5.4 12 6 9 50 35 22 20 4 portfolioqaa 195 72 full.10.2 0 0 0 0 nan 72 72 72 72 72 portfolioqaa 195 72 full.10.2 180 0 0 0 nan 72 72 72 72 20 portfolioqaa 195 72 full.7.3 120 51 87 70.59 157 177 110 portfolioqaa 195 72 grid.9.3 120 51 87 70.59 157 177 110 portfolioqaa 195 72 grid.9.3 96 39 69 76.92 199 141 121 portfolioqaa 195 72 grid.9.3 180 66 87 31.82 220 138 104 20 portfolioqaa 195 72 grid.9.3 180 66 87 31.82 220 138 104 20 portfolioqaa 195 72 grid.9.3 180 66 87 31.82 220 138 104 20 portfolioqaa 195 72 thorizontal.5.4 117 60 87 45 252 179 110 portfolioqaa 195 72 thorizontal.5.4 117 60 87 45 252 179 110 portfolioqaa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 portfolioqaa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 portfolioqaa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 portfolioqaa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 portfolioqaa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 portfolioqaa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 portfolioqaa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 portfolioqaa 310 107 full.10.2 0 0 0 nan 107 107 107 107 107 portfolioqa 310 107 full.5 3 0 48 0 -100 107 172 107 portfolioqa 310 107 grid.9.3 96 42 57 35.71 209 181 111 portfolioqa 310 107 grid.9.3 96 42 57 35.71 209 181 111 portfolioqa 310 107 grid.9.3 96 42 57 35.71 209 181 111 portfolioqa 310 107 thorizontal.5.4 117 48 93 93.75 179 193 125 portfolioqa 310 107 thorizontal.5.4 117 48 93 93.75 179 193 125 qaaa 95 31 full.7.3 0 0 0 0 nan 31 42 31 qaaa 95 31 full.7.3 0 0 0 0 nan 31 42 31 qaaa 95 31 full.7.3 0 0 0 0 nan 31 42 31 qaaa 95 31 full.7.3 0 0 0 0 nan 31 42 31 qaaa 95 31 full.7.3 0 0 0 0 nan 31 42 31 qaaa 95 31 full.7.3 0 0 0 0 0 nan 31 42 31 qaaa 95 31 full.5 18 60 27 350 59 50 45 48 49 27 200 54 48 45 qaaa 95 31 full.5 2 48 48 12 18 50 106 47 45 qaaa 95 31 full.5 2 48 48 12 18 50 106 42 39 26 60 42 qaaa 95 31 thorizontal.5 4 33 9 24 166.67 100 48 45 qaaa 95 31 thorizontal.5 4 33 9 24 166.67 100 48 45 qaaa 95 31 thorizontal.5 4 33 9 24 166.67	~ -											-16 -20
portfolioqaoa 195 72 full.10.2 0 0 0 nan 72 72 72 72 0 portfolioqaoa 195 72 full.7.3 0 0 0 nan 72 72 72 72 0 portfolioqaoa 195 72 ring.10.2 180 66 87 31.82 255 166 110 portfolioqaoa 195 72 ring.7.3 120 51 87 70.59 157 177 110 portfolioqaoa 195 72 ring.7.3 120 51 87 70.59 157 177 110 portfolioqaoa 195 72 grid.9.3 96 39 69 76.92 199 141 121 portfolioqaoa 195 72 grid.9.3 180 66 93 40.91 255 166 90 portfolioqaoa 195 72 grid.4.5 180 66 93 40.91 255 166 90 portfolioqaoa 195 72 line.5.4 180 66 93 40.91 255 166 90 portfolioqaoa 195 72 t.vertical.5.4 117 66 87 45 252 179 110 portfolioqaoa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 portfolioqao 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 portfolioqao 310 107 full.10.2 0 0 0 0 nan 107 107 107 107 107 portfolioqae 310 107 full.7.3 0 48 0 -100 107 172 107 portfolioqae 310 107 full.7.3 0 48 0 -100 107 172 107 portfolioqae 310 107 ring.10.2 180 51 93 82.35 242 204 125 portfolioqae 310 107 grid.9.3 96 42 57 35.71 209 181 111 portfolioqae 310 107 grid.4.5 81 39 48 23.08 239 175 119 portfolioqae 310 107 grid.4.5 81 39 48 23.08 239 175 115 portfolioqae 310 107 t.vertical.5.4 117 48 93 93.75 239 193 125 portfolioqae 310 107 t.vertical.5.4 117 48 93 93.75 239 193 125 portfolioqae 310 107 t.vertical.5.4 117 57 93 63.16 239 205 125 portfolioqae 310 107 t.vertical.5.4 117 57 93 63.16 239 205 125 qaoa 95 31 full.10.2 0 3 0 -100 31 42 31 -4 qaoa 95 31 full.10.2 0 3 0 -100 31 42 31 -4 qaoa 95 31 full.10.2 0 3 0 -100 31 42 31 -4 qaoa 95 31 full.7.3 0 0 0 nan 31 31 31 31 31 40 qaoa 95 31 full.7.3 0 0 0 nan 38 38 38 38 0 qaoa 95 31 t.vertical.5.4 33 9 24 166.67 100 48 45 qaoa 95 31 t.vertical.5.4 33 9 24 166.67 100 48 45 qaoa 95 31 t.vertical.5.4 33 9 24 166.67 100 48 45 qaoa 95 31 t.vertical.5.4 33 9 24 166.67 100 48 45 qaoa 95 31 t.vertical.5.4 33 9 24 166.67 100 48 45 qaoa 95 31 t.vertical.5.4 33 9 24 166.67 100 48 45 qaoa 95 31 t.vertical.5.4 33 9 24 166.67 100 48 45 qaoa 95 31 t.vertical.5.4 33 9 24 166.67 100 48 45 qaoa 95 31 t.vertical.5.4 33 9 24 166.67 100 48 45 qaoa 9	~ -											-20 -9.09
portfolioqaoa 195 72 full.7.3 0 0 0 0 nan 72 72 72 72 02 0 portfolioqaoa 195 72 ring.10.2 180 66 87 31.82 255 166 110 - portfolioqaoa 195 72 ring.7.3 120 51 87 70.59 157 177 110 - portfolioqaoa 195 72 grid.9.3 96 39 69 76.92 199 141 121 - portfolioqaoa 195 72 grid.4.5 81 42 69 64.29 220 138 104 - portfolioqaoa 195 72 line.5.4 180 66 93 40.91 255 166 90 - portfolioqaoa 195 72 thorizontal.5.4 117 66 87 45 255 166 110 - portfolioqaoa 195 72 thorizontal.5.4 117 66 87 31.82 252 166 110 - portfolioqaoa 195 72 thorizontal.5.4 117 66 87 31.82 252 166 110 - portfolioqaoa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 - portfolioqaoa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 - portfolioqaoa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 - portfolioqaoa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 - portfolioqao 310 107 full.10.2 0 0 0 nan 107 107 107 107 107 07 portfolioqa 310 107 full.7.3 0 48 0 -100 107 172 107 - portfolioqa 310 107 ring.7.3 120 48 93 93.75 179 193 125 - portfolioqa 310 107 ring.7.3 120 48 93 93.75 179 193 125 - portfolioqa 310 107 grid.9.3 96 42 57 35.71 209 181 111 - portfolioqa 310 107 grid.4.5 81 39 48 23.08 239 175 115 - portfolioqa 310 107 thorizontal.5.4 117 48 93 93.75 239 193 125 - portfolioqa 310 107 thorizontal.5.4 117 48 93 93.75 239 193 125 - portfolioqa 310 107 t.vertical.5.4 117 48 93 93.75 239 193 125 - qaoa 95 31 full.10.2 0 3 0 -100 31 42 31 - qaoa 95 31 full.7.3 0 0 0 nan 31 31 31 0 qaoa 95 31 full.5.3 99 99 21 133.33 37 48 48 48 0 qaoa 95 31 full.5.3 99 99 21 133.33 37 48 48 48 0 qaoa 95 31 grid.4.5 18 6 27 350 59 50 44 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 t	~ -											
Dortfolioqaoa 195 72 ring.10.2 180 66 87 31.82 255 166 110 1												
Portfolioqaoa 195 72 ring.7.3 120 51 87 70.59 157 177 110 170 171 171 171 171 171 172 171 173 174 175 17												-33.73
portfolioqaoa 195 72 grid.9.3 96 39 69 76.92 199 141 121 - portfolioqaoa 195 72 grid.4.5 81 42 69 64.29 220 138 104 - portfolioqaoa 195 72 line.5.4 180 66 93 40.91 255 166 90 - portfolioqaoa 195 72 t.horizontal.5.4 117 60 87 45 252 179 110 - portfolioqaoa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 - portfolioqaoa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 - portfolioqaoa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 - portfolioqao 310 107 full.10.2 0 0 0 nan 107 107 107 107 07 portfolioqa 310 107 full.7.3 0 48 0 -100 107 172 107 - portfolioqa 310 107 ring.10.2 180 51 93 82.35 242 204 125 - portfolioqa 310 107 grid.9.3 96 42 57 35.71 209 181 111 - portfolioqa 310 107 grid.9.3 96 42 57 35.71 209 181 111 - portfolioqa 310 107 grid.4.5 81 39 48 23.08 239 175 115 - portfolioqa 310 107 t.horizontal.5.4 117 48 93 93.75 239 193 125 - portfolioqa 310 107 t.horizontal.5.4 117 48 93 93.75 239 193 125 - portfolioqa 310 107 t.horizontal.5.4 117 48 93 93.75 239 193 125 - qaoa 95 31 full.10.2 0 3 0 0 nan 31 31 31 0 qaoa 95 31 full.7.3 0 0 0 nan 31 31 31 10 qaoa 95 31 full.7.3 0 0 0 nan 31 31 31 31 0 qaoa 95 31 full.7.3 0 0 0 nan 31 31 31 31 0 qaoa 95 31 full.7.3 1 0 0 0 nan 31 31 31 31 0 qaoa 95 31 full.5.4 18 6 27 350 59 50 45 - qaoa 95 31 full.7.3 0 0 0 nan 33 33 37 48 48 48 0 qaoa 95 31 thorizontal.5.4 18 6 27 350 59 50 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 thorizontal.5.4 33 9 24 166.67 100												-33.73 -37.85
Portfolioqaoa 195 72 grid 4.5 81 42 69 64.29 220 138 104 104 105 105 106 105 106 105 106 105 106 105 106 105 105 106 105 105 106 105 1	• •											-14.18
portfolioqaoa 195 72 line.5.4 180 66 93 40.91 255 166 90				9								-24.64
Portfolioqaoa												-45.78
Portfolioqaoa 195 72 t.vertical.5.4 117 66 87 31.82 252 166 110 11												-38.55
portfoliovqe 310 107 full_10_2 0 0 0 nan 107 107 107 0 portfoliovqe 310 107 full_7_3 0 48 0 -100 107 172 107 - portfoliovqe 310 107 ring_7_3 120 48 93 93.75 179 193 125 - portfoliovqe 310 107 gid_9_3 96 42 57 35.71 209 181 111 - portfoliovqe 310 107 gid_4_5 81 39 48 23.08 239 175 115 - portfoliovqe 310 107 t.horizontal_5_4 117 48 93 93.75 239 193 125 - portfoliovqe 310 107 t.horizontal_5_4 117 57 93 63.16 239 205 125 - qaoa 95 <												-33.73
portfoliovqe 310 107 full_7_3 0 48 0 -100 107 172 107 -172 <												0
portfoliovqe 310 107 ring_10_2 180 51 93 82.35 242 204 125												-37.79
portfoliovqe 310 107 ring_7_3 120 48 93 93.75 179 193 125												-38.73
portfoliovqe 310 107 grid_9_3 96 42 57 35.71 209 181 111				~								-35.23
portfoliovqe 310 107 grid_4_5 81 39 48 23.08 239 175 115				~								-38.67
portfoliovqe 310 107 line_5_4 180 69 90 30.43 242 187 126												-34.29
portfoliovqe 310 107 t_horizontal_5_4 117 48 93 93.75 239 193 125												-32.62
qaoa 95 31 full_10_2 0 3 0 -100 31 42 31 -100 qaoa 95 31 full_7_3 0 0 0 nan 31	portfoliovqe	310	107	$t_{borizontal_5_4}$	117	48	93	93.75	239	193	125	-35.23
qaoa 95 31 full_10_2 0 3 0 -100 31 42 31 -100 qaoa 95 31 full_7_3 0 0 0 nan 31				$t_{vertical_5_4}$			93					-39.02
qaoa 95 31 full_7_3 0 0 0 nan 31 31 31 31 31 0 0 0 nan 31 31 31 31 0 0 0 nan 31 31 31 0 0 0 nan 31 31 31 0	-		31	$full_10_2$	0	3	0	-100	31	42	31	-26.19
qaoa 95 31 ring.7.3 24 9 27 200 54 48 45 -4 qaoa 95 31 grid.9.3 9 9 21 133.33 37 48 48 0 qaoa 95 31 grid.4.5 18 6 27 350 59 50 45 - qaoa 95 31 line.5.4 48 12 18 50 106 42 39 - qaoa 95 31 t.horizontal.5.4 33 9 24 166.67 100 48 45 - qaoa 95 31 t.vertical.5.4 33 9 24 166.67 100 48 45 - qft 71 38 full.10.2 0 0 nan 38 38 38 38 38 38 38 38 38 38 38 38 38	qaoa	95	31	$full_7_3$	0		0	nan	31	31		0
qaoa 95 31 grid_9_3 9 9 21 133.33 37 48 48 0 qaoa 95 31 grid_4_5 18 6 27 350 59 50 45 - qaoa 95 31 line_5_4 48 12 18 50 106 42 39 - qaoa 95 31 t_horizontal_5_4 33 9 24 166.67 100 48 45 - qaoa 95 31 t_vertical_5_4 33 9 24 166.67 100 48 45 - qaoa 95 31 t_vertical_5_4 33 9 24 166.67 100 48 45 - qft 71 38 full_10_2 0 0 0 nan 38	qaoa		31	$ring_{-}10_{-}2$		12						-4.26
qaoa 95 31 grid_4_5 18 6 27 350 59 50 45 - qaoa 95 31 line_5_4 48 12 18 50 106 42 39 - qaoa 95 31 t_horizontal_5_4 33 9 24 166.67 100 48 45 - qaoa 95 31 t_vertical_5_4 33 9 24 166.67 100 48 45 - qft 71 38 full_10_2 0 0 nan 38 38 38 38 qft 71 38 full_7_3 0 0 0 nan 38 38 38 38 qft 71 38 ring_10_2 72 15 24 60 92 60 42 - qft 71 38 ring_7_3 51 18 24 33.33	qaoa	95	31	$ring_{-}7_{-}3$	24	9	27			48		-6.25
qaoa 95 31 line_5_4 48 12 18 50 106 42 39 -4 qaoa 95 31 t_horizontal_5_4 33 9 24 166.67 100 48 45 -4 qaoa 95 31 t_vertical_5_4 33 9 24 166.67 100 48 45 -4 qft 71 38 full_10_2 0 0 0 nan 38 38 38 38 qft 71 38 full_7_3 0 0 0 nan 38 38 38 38 qft 71 38 ring_10_2 72 15 24 60 92 60 42 -4 qft 71 38 ring_7_3 51 18 24 33.33 77 57 42 -4 qft 71 38 grid_9_3 39 12 21 75 74 53 41 -4 qft 71 38 grid_9_3 36 15 27 80 82 54 52 -4	qaoa			~								0
qaoa 95 31 t_horizontal_5_4 33 9 24 166.67 100 48 45 -4 qaoa 95 31 t_vertical_5_4 33 9 24 166.67 100 48 45 -4 qft 71 38 full_10_2 0 0 0 nan 38 38 38 38 0 qft 71 38 ring_10_2 72 15 24 60 92 60 42 -4 4 4 4 4 -4 4 -4 4 -4	qaoa			~								-10
qaoa 95 31 t_vertical_5_4 33 9 24 166.67 100 48 45 -4 qft 71 38 full_10_2 0 0 0 nan 38 38 38 0 qft 71 38 ring_10_2 72 15 24 60 92 60 42 -4 qft 71 38 ring_7_3 51 18 24 33.33 77 57 42 -4 qft 71 38 grid_9_3 39 12 21 75 74 53 41 -4 qft 71 38 grid_9_3 39 12 21 75 74 53 41 -4 qft 71 38 grid_4_5 36 15 27 80 82 54 52 -6	qaoa											-7.14
qft 71 38 full_10_2 0 0 0 nan 38 38 38 38 0 qft 71 38 full_7_3 0 0 0 nan 38 38 38 38 0 qft 71 38 ring_10_2 72 15 24 60 92 60 42 60 qft 71 38 ring_7_3 51 18 24 33.33 77 57 42 60 qft 71 38 grid_9_3 39 12 21 75 74 53 41 60 qft 71 38 grid_4_5 36 15 27 80 82 54 52 60	qaoa											-6.25
qft 71 38 full_7_3 0 0 0 nan 38 38 38 0 qft 71 38 ring_10_2 72 15 24 60 92 60 42 92 qft 71 38 ring_7_3 51 18 24 33.33 77 57 42 92 qft 71 38 grid_9_3 39 12 21 75 74 53 41 92 qft 71 38 grid_4_5 36 15 27 80 82 54 52 52												-6.25
qft 71 38 ring_10_2 72 15 24 60 92 60 42 -1 qft 71 38 ring_7_3 51 18 24 33.33 77 57 42 -1 qft 71 38 grid_9_3 39 12 21 75 74 53 41 -1 qft 71 38 grid_4_5 36 15 27 80 82 54 52 -1												0
qft 71 38 ring_7_3 51 18 24 33.33 77 57 42 -1 qft 71 38 grid_9_3 39 12 21 75 74 53 41 -1 qft 71 38 grid_4_5 36 15 27 80 82 54 52 -1												0
qft 71 38 grid_9_3 39 12 21 75 74 53 41 -1 qft 71 38 grid_4_5 36 15 27 80 82 54 52 -3				~								-30
qft 71 38 grid_4_5 36 15 27 80 82 54 52 -				~								-26.32
												-22.64
qtt 71 38 $line_{-5}$ 4 72 24 24 0 92 57 42 -												-3.7
												-26.32
qft 71 38 t_horizontal_5_4 48 15 24 60 82 60 42	qtt	71	38	t_horizontal_5_4	48	15	24	θÜ	82	60	42	-30

Benchmark	g	d	layout	s basic	s sabre	s look	swap (%)	d basic	d swap	d look	d (%)
qft	71	38	t_vertical_5_4	48	15	24	60	82	60	42	-30
qftentangled	78	42	$full_10_2$	0	0	0	nan	42	42	42	0
qftentangled	78	42	$full_{-}7_{-}3$	0	15	0	-100	42	74	42	-43.24
qftentangled	78	42	$ring_10_2$	72	21	30	42.86	96	75	49	-34.67
qftentangled	78	42	$ring_7_3$	51	21	30	42.86	81	76	49	-35.53
qftentangled	78	42	$grid_9_3$	45	21	27	28.57	87	76	45	-40.79
qftentangled	78	42	$grid_4_5$	36	18	15	-16.67	78	57	45	-21.05
qftentangled	78	42	$line_5_4$	72	24	36	50	96	73	50	-31.51
qftentangled	78	42	$t_{horizontal_5_4}$	60	24	33	37.5	90	73	48	-34.25
qftentangled	78	42	$t_{\text{vertical}}_{5_{\text{-}}}4$	60	21	33	57.14	90	75	48	-36
qnn	154	58	$full_10_2$	0	39	0	-100	58	133	58	-56.39
qnn	154	58	$full_{-}7_{-}3$	0	12	0	-100	58	90	58	-35.56
qnn	154	58	$ring_10_2$	120	39	66	69.23	172	122	84	-31.15
qnn	154	58	$ring_{-}7_{-}3$	93	48	66	37.5	122	127	84	-33.86
qnn	154	58	$grid_9_3$	63	30	48	60	132	97	78	-19.59
qnn	154	58	$grid_4_5$	54	30	54	80	151	103	80	-22.33
qnn	154	58	$line_5_4$	120	48	84	75	172	127	80	-37.01
qnn	154	58	$t_{\text{horizontal}_5_4}$	81	48	66	37.5	172	127	84	-33.86
qnn	154	58	t_vertical_5_4	81	45	66	46.67	172	133	84	-36.84
random	223	97	full_10_2	0	12	0	-100	97	126	97	-23.02
random	223	97	$full_7_3$	0	6	0	-100	97	140	97	-30.71
random	223	97	ring_10_2	63	12	66	450	160	106	121	14.15
random	223	97	$ring_7_3$	60	12	66	450	157	106	121	14.15
random	223	97	grid_9_3	30	12	27	125	114	106	111	4.72
random	223	97	grid_4_5	39	12	27	125	169	106	111	4.72
random	223	97	line_5_4	63	12	30	150	160	106	99	-6.6
random	223	97	t_horizontal_5_4	36	12	66	450	151	106	121	14.15
random	223	97	t_vertical_5_4	36	12	66	450	151	106	121	14.15
realamprandom	130	37	full_10_2 full_7_3	0	$0\\42$	0	nan -100	37 37	37	37 37	0
realamprandom realamprandom	130 130	37 37		190		0 60	17.65		108 109	66	-65.74 -39.45
realamprandom	130	37	ring_10_2 ring_7_3	180 120	51 48	60	25	$\frac{206}{129}$	109	66	-39.45 -35.29
realamprandom	130	37	grid_9_3	96	24	42	25 75	145	89	64	-33.29
realamprandom	130	37	grid_4_5	81	42	48	14.29	160	97	59	-39.18
realamprandom	130	37	line_5_4	180	72	93	29.17	206	128	59	-53.10
realamprandom	130	37	t_horizontal_5_4	117	51	60		185	106	66	-37.74
realamprandom	130	37	t_vertical_5_4	117	51	60	17.65	185	106	66	-37.74
su2random	150	41	full_10_2	0	15	0	-100	41	64	41	-35.94
su2random	150	41	full_7_3	0	0	0	nan	41	41	41	0
su2random	150	41	ring_10_2	180	48	60	25	219	110	70	-36.36
su2random	150	41	ring_7_3	120	51	60	17.65	138	117	70	-40.17
su2random	150	41	grid_9_3	96	24	42	75	155	96	68	-29.17
su2random	150	41	$grid_4_5$	81	42	48	14.29	174	106	63	-40.57
su2random	150	41	line_5_4	180	69	93	34.78	219	123	63	-48.78
su2random	150	41	$t_{horizontal_5_4}$	117	48	60	25	198	115	70	-39.13
su2random	150	41	$t_{vertical_5_4}$	117	48	60	25	198	110	70	-36.36
twolocalrandom	130	37	$full_10_2$	0	0	0	nan	37	37	37	0
two local random	130	37	$full_7_3$	0	15	0	-100	37	71	37	-47.89
two local random	130	37	$ring_10_2$	180	51	60	17.65	206	109	66	-39.45
two local random	130	37	ring73	120	48	60	25	129	107	66	-38.32
two local random	130	37	$grid_9_3$	96	36	42	16.67	145	93	64	-31.18
two local random	130	37	$grid_4_5$	81	42	48	14.29	160	101	59	-41.58
two local random	130	37	$line_5_4$	180	72	93	29.17	206	113	59	-47.79
two local random	130	37	$t_{horizontal_5_4}$	117	72	60	-16.67	185	126	66	-47.62
two local random	130	37	$t_{vertical_5_4}$	117	48	60	25	185	107	66	-38.32
vqe	83	21	$full_10_2$	0	0	0	nan	21	21	21	0
vqe	83	21	$full_7_3$	0	0	0	nan	21	21	21	0
vqe	83	21	$\operatorname{ring}_{-}10_{-}2$	0	0	15	nan	21	21	29	38.1
vqe	83	21	$ring_{-}7_{-}3$	0	0	15	nan	21	21	29	38.1
vqe	83	21	$grid_{-}9_{-}3$	15	0	12	nan	35	21	27	28.57
vqe	83	21	$grid_4_5$	18	0	15	nan	39	21	29	38.1
vqe	83	21	$line_5_4$	0	0	15	nan	21	21	24	14.29
									Continu	ıed on ne	rt nego

Benchmark	g	d	layout	s basic	s sabre	s look	swap (%)	d basic	d swap	d look	d (%)
vqe	83	21	$t_{horizontal_5_4}$	12	0	12	nan	33	21	25	19.05
vqe	83	21	$t_{\text{vertical}}_{-5}_{-4}$	12	0	12	nan	33	21	25	19.05
wstate	73	45	$full_10_2$	0	0	0	nan	45	45	45	0
wstate	73	45	$full_7_3$	0	0	0	nan	45	45	45	0
wstate	73	45	$ring_10_2$	0	0	9	nan	45	45	40	-11.11
wstate	73	45	$ring_7_3$	0	0	9	nan	45	45	40	-11.11
wstate	73	45	$grid_9_3$	18	0	12	nan	54	45	41	-8.89
wstate	73	45	$grid_4_5$	12	0	9	nan	51	45	40	-11.11
wstate	73	45	$line_5_4$	0	0	15	nan	45	45	33	-26.67
wstate	73	45	t_{-} horizontal_5_4	18	0	6	nan	58	45	39	-13.33
wstate	73	45	$t_{\text{vertical}}_{-5}_{-4}$	18	0	6	nan	58	45	39	-13.33

Benchmark	g	d	layout	s basic	s sabre	s look	swap (%)	d basic	d swap	d look	d (%)
dj	79	17	$full_10_2$	0	3	0	-100	17	20	17	-15
dj	79	17	$full_7_3$	48	9	9	0	70	26	22	-15.38
dj	79	17	$ring_{-}10_{-}2$	78	21	24	14.29	64	43	21	-51.16
dj	79 70	17	ring_7_3	126	15	24	60	79	35	19	-45.71
dj	79 70	17	grid_9_3	90	21	12	-42.86	82	46	22	-52.17
dj di	79 79	17	$grid_4_5$ $line_5_4$	$\frac{144}{216}$	21 21	18 21	-14.29 0	88 94	44 54	24 30	-45.45 -44.44
dj dj	79 79	17 17	t_horizontal_5_4	$\frac{210}{150}$	21	$\frac{21}{15}$	-28.57	94 88	54 51	26	-44.44 -49.02
dj	79 79	17	t_vertical_5_4	130 135	30	15	-20.51 -50	85	49	$\frac{20}{25}$	-49.02 -48.98
$_{ m ghz}$	12	12	full_10_2	0	6	0	-100	12	15	12	-20
ghz	12	12	full_7_3	0	9	0	-100	12	21	12	-42.86
$_{ m ghz}$	12	12	ring_10_2	0	9	36	300	12	21	17	-19.05
ghz	12	12	$ring_{-}7_{-}3$	0	15	51	240	12	24	25	4.17
ghz	12	12	$grid_9_3$	12	9	24	166.67	24	21	16	-23.81
ghz	12	12	$grid_4_5$	6	6	24	300	18	18	16	-11.11
ghz	12	12	$line_5_4$	0	9	27	200	12	21	15	-28.57
$_{ m ghz}$	12	12	t_horizontal_5_4	18	0	21	nan	30	12	17	41.67
ghz	12	12	t_vertical_5_4	27	9	30	233.33	39	18	19	5.56
graphstate	100	23 23	full_10_2 full_7_3	0 18	$\frac{6}{3}$	$0\\12$	-100 300	23 53	$\begin{array}{c} 30 \\ 24 \end{array}$	23 23	-23.33
graphstate graphstate	100 100	23 23	ring_10_2	30	3 12	39	$\frac{500}{225}$	55 45	28	23 29	-4.17 3.57
graphstate	100	$\frac{23}{23}$	ring_7_3	48	18	39	116.67	63	33	29	-12.12
graphstate	100	23	grid_9_3	42	15	48	220	57	33	26	-21.21
graphstate	100	23	$grid_4_5$	51	15	36	$\frac{140}{140}$	70	35	$\frac{1}{24}$	-31.43
graphstate	100	23	$line_5_4$	72	24	57	137.5	68	36	32	-11.11
graphstate	100	23	$t_{borizontal_5_4}$	60	21	36	71.43	66	38	23	-39.47
graphstate	100	23	$t_{vertical_5_4}$	63	21	39	85.71	76	34	24	-29.41
portfolioqaoa	615	132	$full_10_2$	0	111	0	-100	132	426	132	-69.01
portfolioqaoa	615	132	$full_7_3$	471	156	231	48.08	845	478	239	-50
portfolioqaoa	615	132	ring_10_2	885	387	594	53.49	606	496	292	-41.13
portfolioqaoa	615	132	grid_9_3	690	249 261	384	54.22 72.41	803	384	248	-35.42
portfolioqaoa portfolioqaoa	$615 \\ 615$	$\frac{132}{132}$	$grid_4_5$ $line_5_4$	1323 2160	$\frac{201}{360}$	$450 \\ 408$	13.33	$956 \\ 985$	$\frac{356}{380}$	$\frac{262}{176}$	-26.4 -53.68
portfolioqaoa	615	132	t_horizontal_5_4	1614	366	489	33.61	979	367	238	-35.15
portfolioqaoa	615	132	t_vertical_5_4	1515	396	504	27.27	976	462	255	-44.81
portfoliovqe	1145	217	grid_9_3	690	222	387	74.32	951	479	284	-40.71
portfoliovqe	1145	217	$grid_4_5$	1323	261	342	31.03	994	465	265	-43.01
portfoliovqe	1145	217	$line_5_4$	2160	360	408	13.33	1007	402	255	-36.57
portfoliovqe	1145	217	$t_{-}horizontal_{-}5_{-}4$	1614	366	441	20.49	1001	444	276	-37.84
portfoliovqe	1145	217	$t_{\text{-}}vertical_{\text{-}}5_{\text{-}}4$	1515	396	507	28.03	997	536	282	-47.39
portfoliovqe	1145	217	full_10_2	0	15	0	-100	217	288	217	-24.65
portfoliovqe	1145	217	full_7_3	471	105	255	142.86	878	450	308	-31.56
portfoliovqe	1145	217	ring_10_2	885	411	636	54.74	636	588	298	-49.32
qaoa	190 190	$\frac{34}{34}$	grid_9_3	63 105	12 21	78 33	$550 \\ 57.14$	$145 \\ 174$	56 59	49 38	-12.5 -35.59
qaoa qaoa	190	34 34	$grid_4_5$ $line_5_4$	168	30	55 75	57.14 150	228	53	30 44	-33.39 -16.98
qaoa qaoa	190	34	t_horizontal_5_4	129	21	78	271.43	206	50	50	0
qaoa	190	34	t_vertical_5_4	114	27	81	200	196	82	56	-31.71
qaoa	190	34	full_10_2	0	6	0	-100	34	47	34	-27.66
qaoa	190	34	$full_{-}7_{-}3$	48	6	15	150	138	50	42	-16
qaoa	190	34	$ring_10_2$	120	24	60	150	154	42	48	14.29
qaoa	190	34	$ring_{-}7_{-}3$	81	21	75	257.14	158	64	56	-12.5
qft	270	78	full_10_2	0	18	0	-100	78	133	78	-41.35
qft	270	78 70	full_7_3	168	45	150	233.33	236	159	140	-11.95
qft	270	78	ring_10_2	330	141	165	17.02	233	205	103	-49.76
qft	270	78 78	ring_7_3	540 270	135	159	17.78	319	188	116	-38.3
$rac{ ext{qft}}{ ext{qft}}$	$\frac{270}{270}$	78 78	$grid_{-}9_{-}3$ $grid_{-}4_{-}5$	279 507	96 108	180 195	87.5 80.56	$\frac{288}{335}$	211 176	120 130	-43.13 -26.14
qrt qft	$\frac{270}{270}$	78 78	grid_4_5 line_5_4	780	168	195 195	80.56 16.07	335 342	181	106	-20.14 -41.44
qft	270	78	t_horizontal_5_4	486	162	195	20.37	331	198	106	-46.46
qft	270	78	t_vertical_5_4	498	144	195	35.42	273	187	106	-43.32
qftentangled	282	82	full_10_2	0	18	0	-100	82	156	82	-47.44
										and on ne	

Benchmark	g	d	layout	s basic	s sabre	s look	swap (%)	d basic	d swap	d look	d (%)
qftentangled	282	82	$full_7_3$	168	57	150	163.16	240	181	144	-20.44
qftentangled	282	82	$ring_{-}10_{-}2$	330	147	165	12.24	237	239	107	-55.23
qftentangled	282	82	$grid_{-}9_{-}3$	282	99	198	100	288	177	135	-23.73
qftentangled	282	82	grid_4_5	414	108	180	66.67	285	213	122	-42.72
qftentangled	282	82	line_5_4	780	195	195	0	346	217	110	-49.31
qftentangled	$\frac{282}{282}$	82 82	t_horizontal_5_4 t_vertical_5_4	510 510	156 153	$\frac{195}{195}$	$25 \\ 27.45$	313 309	$\frac{225}{228}$	110 110	-51.11 -51.75
qftentangled	$\frac{202}{459}$	108	full_10_2	0	90	193	-100	108	310	108	-65.16
qnn qnn	459	108	full_7_3	294	180	249	38.33	531	338	$\frac{108}{214}$	-36.69
qnn	459	108	ring_10_2	663	288	432	50.55	440	360	232	-35.56
qnn	459	108	grid_9_3	456	180	240	33.33	537	275	174	-36.73
qnn	459	108	$grid_{-4}_{-5}$	876	186	390	109.68	636	291	220	-24.4
qnn	459	108	$line_5_4$	1440	249	327	31.33	657	258	155	-39.92
qnn	459	108	$t_{\text{horizontal}_5_4}$	1056	249	402	61.45	662	258	194	-24.81
qnn	459	108	$t_{vertical_5_4}$	1002	258	423	63.95	662	304	204	-32.89
random	646	155	$full_10_2$	0	93	0	-100	155	320	155	-51.56
random	646	155	$full_7_3$	159	114	132	15.79	419	320	179	-44.06
random	646	155	$ring_10_2$	402	237	381	60.76	493	375	244	-34.93
random	646	155	grid_9_3	285	171	225	31.58	455	312	185	-40.71
random	646	155	grid_4_5	477	186	375	101.61	643	325	222	-31.69
random	646	155	line_5_4	$582 \\ 522$	312 273	435	39.42	708	342	225	-34.21
random random	$646 \\ 646$	$155 \\ 155$	t_horizontal_5_4 t_vertical_5_4	$\frac{522}{525}$	246	$\frac{402}{381}$	47.25 54.88	660 710	$419 \\ 351$	$\frac{231}{228}$	-44.87 -35.04
realamprandom	335	57	full_10_2	0	105	0	-100	57	213	57	-33.04 -73.24
realamprandom	335	57	full_7_3	471	99	141	42.42	632	224	130	-41.96
realamprandom	335	57	ring_10_2	885	399	516	29.32	522	351	215	-38.75
realamprandom	335	57	grid_9_3	690	231	321	38.96	591	248	151	-39.11
realamprandom	335	57	$grid_4_5$	1323	258	375	45.35	786	246	138	-43.9
realamprandom	335	57	$line_5_4$	2160	369	396	7.32	876	278	112	-59.71
realamprandom	335	57	$t_{-}horizontal_{-}5_{-}4$	1614	363	414	14.05	840	263	143	-45.63
real amprandom	335	57	$t_{\text{-}}vertical_{\text{-}}5_{\text{-}}4$	1515	378	447	18.25	835	243	154	-36.63
su2random	375	61	$full_10_2$	0	99	0	-100	61	236	61	-74.15
su2random	375	61	full_7_3	471	126	141	11.9	657	220	135	-38.64
su2random	375	61	ring_10_2	885	402	537	33.58	543	381	224	-41.21
su2random	375	61	grid_9_3	690	273	321	17.58	619	310	157	-49.35
$ m su2random \\ m su2random$	$\frac{375}{375}$	61 61	$grid_4_5$ $line_5_4$	1323 2160	261 360	$\frac{375}{396}$	43.68 10	815 904	$ \begin{array}{r} 267 \\ 291 \end{array} $	142 116	-46.82 -60.14
su2random su2random	$\frac{375}{375}$	61	t_horizontal_5_4	1614	372	$\frac{390}{414}$	11.29	868	291	147	-49.66
su2random su2random	375	61	t_vertical_5_4	1515	384	447	16.41	863	310	160	-48.39
twolocalrandom	335	57	full_10_2	0	81	0	-100	57	196	57	-70.92
twolocalrandom	335	57	full_7_3	471	195	141	-27.69	632	264	130	-50.76
twolocalrandom	335	57	ring_10_2	885	405	516	27.41	522	402	215	-46.52
two local random	335	57	grid_9_3	690	273	321	17.58	591	299	151	-49.5
two local random	335	57	$grid_4_5$	1323	258	375	45.35	786	254	138	-45.67
two local random	335	57	$line_5_4$	2160	360	396	10	876	268	112	-58.21
two local random	335	57	$t_{-}horizontal_{-}5_{-}4$	1614	366	414	13.11	840	265	143	-46.04
two local random	335	57	$t_{vertical_5_4}$	1515	423	447	5.67	835	304	154	-49.34
vqe	168	26	full_10_2	0	0	0	nan	26	26	26	0
vqe	168	26	full_7_3	0	3	0	-100	26	38	26	-31.58
vqe	168	26	ring_10_2	0	9 6	66	633.33	26	40	40	0
vqe	168 168	26 26	$grid_9_3$ $grid_4_5$	$\frac{9}{36}$	3	54 45	800 1400	31 61	$\frac{35}{35}$	43 33	22.86 -5.71
vqe	168	26 26	$\lim_{5}4$	0	0	$\frac{45}{27}$	nan	26	26	33	$\frac{-5.71}{26.92}$
vqe vqe	168	26 26	t_horizontal_5_4	51	0	33	nan	71	26 26	35 37	42.31
vqe vqe	168	26	t_norizontar_5_4 t_vertical_5_4	66	3	55 51	1600	73	35	38	8.57
wstate	163	90	full_10_2	0	0	0	nan	90	90	90	0
wstate	163	90	full_7_3	0	6	0	-100	90	93	90	-3.23
wstate	163	90	ring_10_2	0	12	48	300	90	96	62	-35.42
wstate	163	90	$grid_{-}9_{-}3$	21	0	27	nan	102	90	46	-48.89
wstate	163	90	$grid_4_5$	24	15	42	180	96	99	65	-34.34
wstate	163	90	$line_5_4$	0	0	27	nan	90	90	76	-15.56
wstate	163	90	$t_{\text{horizontal}_5_4}$	45	0	27	nan	116	90	72	-20
				-	-				Continu	ied on ne	

Benchmark	g	d	layout	s basic	s sabre	s look	swap (%)	d basic	d swap	d look	d (%)
wstate	163	90	$t_{vertical_5_4}$	72	0	45	nan	137	90	66	-26.67

Benchmark	g	d	layout	s basic	s sabre	s look	swap (%)	d basic	d swap	d look	d (%)
dj	118	22	$full_10_2$	66	9	9	0	95	33	29	-12.12
dj	118	22	$full_7_3$	96	9	15	66.67	116	36	30	-16.67
dj	118	22	ring_10_2	336	33	60	81.82	122	71	28	-60.56
dj	118	22	grid_9_3	234	48	24	-50	122	67	34	-49.25
dj d:	118 118	$\frac{22}{22}$	$grid_4_5$ $line_5_4$	324 546	45 66	27 36	-40 -45.45	128	75 102	$\begin{array}{c} 38 \\ 45 \end{array}$	-49.33 -55.88
dj dj	118	$\frac{22}{22}$	t_horizontal_5_4	$\frac{340}{384}$	42	30 27	-45.45 -35.71	$\frac{146}{137}$	65	40	-38.46
dj	118	22	t_norizontar_5_4 t_vertical_5_4	318	48	$\frac{27}{27}$	-33.71 -43.75	131	69	38	-36.40 -44.93
dj	118	$\frac{22}{22}$	ring_5_4	153	36	27	-25	113	71	33	-53.52
dj	118	22	ring_7_3	168	39	42	7.69	116	66	29	-56.06
ghz	17	17	full_10_2	0	6	0	-100	17	20	17	-15
ghz	17	17	$full_{-7}$ _3	0	6	0	-100	17	20	17	-15
ghz	17	17	$ring_10_2$	0	21	111	428.57	17	26	40	53.85
ghz	17	17	$grid_9_3$	18	9	42	366.67	35	20	25	25
ghz	17	17	$grid_4_5$	12	18	33	83.33	29	32	25	-21.88
ghz	17	17	$line_5_4$	0	12	42	250	17	23	20	-13.04
ghz	17	17	t_horizontal_5_4	27	39	39	0	44	53	28	-47.17
ghz	17	17	t_vertical_5_4	45	51	54	5.88	62	59	29	-50.85
ghz	17	17	ring_5_4	0	27	51	88.89	17 17	41	30	-26.83
ghz	17 150	17 29	ring_7_3	$0 \\ 30$	18	84 24	366.67 300	17 51	32	28 34	-12.5 -15
graphstate graphstate	150 150	29 29	full_10_2 full_7_3	30 36	6 9	$\begin{array}{c} 24 \\ 27 \end{array}$	200	51 67	$\frac{40}{35}$	$\frac{34}{32}$	-15 -8.57
graphstate	150	29	ring_10_2	111	27	108	300	84	32	31	-3.12
graphstate	150	29	grid_9_3	108	30	87	190	86	38	33	-13.16
graphstate	150	29	grid_4_5	147	24	111	362.5	94	31	38	22.58
graphstate	150	29	$line_5_4$	186	36	138	283.33	95	33	49	48.48
graphstate	150	29	$t_{\text{horizontal}_5_4}$	147	42	147	250	96	37	45	21.62
graphstate	150	29	$t_{vertical_5_4}$	150	30	138	360	107	35	41	17.14
graphstate	150	29	$ring_5_4$	78	18	102	466.67	72	38	32	-15.79
$\operatorname{graphstate}$	150	29	$ring_{-}7_{-}3$	84	24	96	300	85	43	35	-18.6
portfolioqaoa	1260	192	full_10_2	1146	141	393	178.72	1766	777	351	-54.83
portfolioqaoa	1260	192	ring_10_2	5427	1065	1701	59.72	2060	793	534	-32.66
portfolioqaoa	1260	192	grid_9_3	3018	663	1074	61.99	1843	655	412	-37.1
portfolioqaoa portfolioqaoa	1260	192 192	grid_4_5	5277 8190	663 888	$1170 \\ 948$	76.47 6.76	$2077 \\ 2165$	585 531	418	-28.55 -51.04
portfolioqaoa	$1260 \\ 1260$	$\frac{192}{192}$	line_5_4 t_horizontal_5_4	5859	822	$\frac{948}{1359}$	65.33	$\frac{2105}{2156}$	636	$\frac{260}{420}$	-33.96
portfolioqaoa	1260	192	t_vertical_5_4	5304	879	1440	63.82	2150 2150	641	430	-32.92
portfoliovqe	2505	327	full_10_2	1146	189	534	182.54	1903	984	504	-48.78
portfoliovqe	2505	327	ring_10_2	5427	1098	1590	44.81	2195	1030	520	-49.51
portfoliovqe	2505	327	grid_9_3	3018	636	1107	74.06	2112	835	471	-43.59
portfoliovqe	2505	327	$grid_{-}4_{-}5$	5277	648	768	18.52	2244	756	412	-45.5
portfoliovqe	2505	327	$line_5_4$	8190	891	948	6.4	2297	695	378	-45.61
portfoliovqe	2505	327	$t_{horizontal_5_4}$	5859	975	1047	7.38	2288	893	431	-51.74
portfoliovqe	2505	327	$t_{vertical_5_4}$	5304	942	1251	32.8	2280	834	456	-45.32
qaoa	285	34	full_10_2	63	6	69	1050	164	50	65	30
qaoa	285	34	ring_10_2	291	36	141	291.67	303	54	60	11.11
qaoa	285	34	grid_9_3	198 257	36	243	575 261 54	247	51 50	71 70	39.22
qaoa	$\frac{285}{285}$	34 34	$grid_4_5$ $line_5_4$	$357 \\ 438$	39 75	$\frac{141}{210}$	261.54 180	$\frac{369}{391}$	58 56	70 71	20.69 26.79
qaoa qaoa	$\frac{285}{285}$	$\frac{34}{34}$	t_horizontal_5_4	$\frac{438}{348}$	75 54	$\frac{210}{234}$	333.33	$\frac{391}{337}$	56	67	20.79 19.64
qaoa qaoa	$\frac{285}{285}$	$\frac{34}{34}$	t_norizontar_5_4 t_vertical_5_4	336	63	$\frac{234}{234}$	271.43	351	62	89	43.55
qaoa	$\frac{285}{285}$	34	ring_5_4	171	51	93	82.35	250	83	43	-48.19
qaoa	$\frac{285}{285}$	34	ring_7_3	228	51	177	247.06	$\frac{260}{267}$	76	71	-6.58
qaoa	285	34	full_7_3	108	15	51	240	223	50	53	6
qft	591	118	$full_10_2$	378	48	321	568.75	485	307	241	-21.5
qft	591	118	$ring_10_2$	2034	384	504	31.25	707	389	186	-52.19
qft	591	118	$grid_9_3$	1164	270	450	66.67	680	292	203	-30.48
qft	591	118	$grid_4_5$	1698	312	525	68.27	734	324	214	-33.95
qft	591	118	$line_{-}5_{-}4$	2877	426	519	21.83	742	316	170	-46.2
qft	591	118	t_horizontal_5_4	1842	381	519	36.22	729	309	170	-44.98
qft	591	118	t_vertical_5_4	1680	396	615	55.3	642	352	222	-36.93
qftentangled	608	122	$full_10_2$	378	72	321	345.83	489	329	245	-25.53

Benchmark	g	d	layout	s basic	s sabre	s look	swap (%)	d basic	d swap	d look	d (%)
qftentangled	608	122	$ring_10_2$	2034	360	624	73.33	711	344	216	-37.21
qftentangled	608	122	$grid_{-}9_{-}3$	1128	279	357	27.96	650	327	192	-41.28
qftentangled	608	122	$grid_4_5$	1575	300	561	87	687	315	223	-29.21
qftentangled	608	122	line_5_4	2877	414	543	31.16	746	311	177	-43.09
qftentangled	608	122	t_horizontal_5_4	1788	390	543	39.23	698	320	177	-44.69
qftentangled	$608 \\ 914$	122 158	t_vertical_5_4 full_10_2	$\frac{1764}{720}$	411 90	$621 \\ 369$	51.09 310	653 1103	393 527	$\frac{234}{302}$	-40.46 -42.69
qnn	914	158	ring_10_2	$\frac{720}{3576}$	708	309 1116	57.63	1356	558	$\frac{302}{349}$	-42.09 -37.46
qnn qnn	914	158	grid_9_3	2061	444	771	73.65	1350 1277	456	343	-24.78
qnn	914	158	grid_4_5	3384	447	858	91.95	1386	414	355	-14.25
qnn	914	158	line_5_4	5460	591	732	23.86	1442	431	234	-45.71
qnn	914	158	$t_{horizontal_5_4}$	4041	606	1065	75.74	1458	481	355	-26.2
qnn	914	158	$t_{vertical_5_4}$	3669	600	1077	79.5	1449	509	344	-32.42
random	1992	412	$full_10_2$	534	246	597	142.68	1200	957	529	-44.72
random	1992	412	$ring_10_2$	2127	1050	1407	34	2042	1129	580	-48.63
random	1992	412	$grid_9_3$	1647	783	1140	45.59	1913	1177	576	-51.06
random	1992	412	grid_4_5	2250	1041	1533	47.26	2103	1056	629	-40.44
random	1992	412	line_5_4	3348	1623	1926	18.67	2915	1128	656	-41.84
random random	$1992 \\ 1992$	$412 \\ 412$	t_horizontal_5_4 t_vertical_5_4	2613 2475	1407 1203	1815 1800	29 49.63	$2408 \\ 2366$	1130	$644 \\ 658$	-43.01 -45.8
random realamprandom	615	$\frac{412}{77}$	full_10_2	1146	1203 177	315	49.03 77.97	$\frac{2500}{1399}$	$\frac{1214}{372}$	210	-43.55
realamprandom	615	77	ring_10_2	5427	1155	1332	15.32	1879	565	$\frac{210}{302}$	-45.55 -46.55
realamprandom	615	77	grid_9_3	3018	666	834	25.23	1603	439	240	-45.33
realamprandom	615	77	$grid_4_5$	5277	645	759	17.67	1840	412	198	-51.94
realamprandom	615	77	$line_5_4$	8190	888	936	5.41	1996	418	162	-61.24
realamprandom	615	77	$t_{horizontal_5_4}$	5859	885	1020	15.25	1927	446	234	-47.53
real amprandom	615	77	$t_{vertical_5_4}$	5304	1047	1098	4.87	1919	564	261	-53.72
real amprandom	615	77	$ring_{-}7_{-}3$	2679	999	1224	22.52	1444	740	319	-56.89
su2random	675	81	$full_10_2$	1146	189	315	66.67	1433	452	215	-52.43
su2random	675	81	ring_10_2	5427	1155	1338	15.84	1922	661	305	-53.86
su2random	$675 \\ 675$	81	grid_9_3	3018	672 672	831 759	23.66	1641	489	$\frac{242}{202}$	-50.51
su2random su2random	675	81 81	$grid_4_5$ $line_5_4$	5277 8190	897	759 936	12.95 4.35	$1881 \\ 2039$	$422 \\ 461$	$\frac{202}{165}$	-52.13 -64.21
su2random su2random	675	81	t_horizontal_5_4	5859	993	1020	2.72	1970	538	$\frac{103}{237}$	-55.95
su2random	675	81	t_vertical_5_4	5304	1086	1098	1.1	1962	658	265	-59.73
twolocalrandom	615	77	full_10_2	1146	138	315	128.26	1399	327	210	-35.78
two local random	615	77	$ring_10_2$	5427	1131	1332	17.77	1879	601	302	-49.75
two local random	615	77	$grid_9_3$	3018	672	834	24.11	1603	453	240	-47.02
two local random	615	77	$grid_4_5$	5277	696	759	9.05	1840	446	198	-55.61
two local random	615	77	$line_{-}5_{-}4$	8190	876	936	6.85	1996	416	162	-61.06
twolocalrandom	615	77	t_horizontal_5_4	5859	876	1020	16.44	1927	424	234	-44.81
twolocalrandom	615	77	t_vertical_5_4	5304	1011	1098	8.61	1919	593	261	-55.99
twolocalrandom	615	77	ring_7_3	2679	882	1224	38.78	1444	595	319	-46.39
vqe	$253 \\ 253$	31 31	full_10_2 ring_10_2	$0 \\ 0$	6 33	$0 \\ 192$	-100 481.82	31 31	41 63	31 59	-24.39 -6.35
vqe vqe	$\frac{253}{253}$	31	grid_9_3	48	9	66	633.33	60	45	47	4.44
vqe	$\frac{253}{253}$	31	grid_4_5	48	12	78	550	75	60	49	-18.33
vqe	253	31	line_5_4	0	69	42	-39.13	31	83	43	-48.19
vqe	253	31	t_horizontal_5_4	63	6	54	800	79	34	47	38.24
vqe	253	31	$t_{\text{-}}vertical_{\text{-}}5_{\text{-}}4$	150	12	99	725	94	54	48	-11.11
vqe	253	31	$ring_{-}7_{-}3$	0	24	138	475	31	63	53	-15.87
vqe	253	31	$full_7_3$	0	12	0	-100	31	56	31	-44.64
vqe	253	31	ring_5_4	0	39	63	61.54	31	76	44	-42.11
wstate	253	135	full_10_2	0	12	0	-100	135	141	135	-4.26
wstate	253	135	ring_10_2	0	15	177	1080	135	138	78 107	-43.48
wstate wstate	$253 \\ 253$	$\frac{135}{135}$	$grid_9_3$ $grid_4_5$	57 39	18 3	72 57	300 1800	$156 \\ 147$	147 138	$107 \\ 102$	-27.21 -26.09
wstate	$\frac{253}{253}$	135	$\frac{grid_4_5}{line_5_4}$	99	0	42	nan	137	135	$\frac{102}{121}$	-20.09 -10.37
wstate	$\frac{253}{253}$	135	t_horizontal_5_4	63	21	$\frac{42}{45}$	114.29	166	141	111	-10.37
wstate	$\frac{253}{253}$	135	t_vertical_5_4	126	45	84	86.67	200	153	97	-36.6
wstate	253	135	ring_7_3	0	15	108	620	135	144	81	-43.75
wstate	253	135	full_7_3	0	12	0	-100	135	141	135	-4.26
									0	an ne	

Benchmark	g	d	layout	s basic	s sabre	s look	swap (%)	d basic	d swap	d look	d (%)
wstate	253	135	ring_5_4	0	48	72	50	135	150	79	-47.33