**Results of circuits s1238**

No of betree: 2

No of vertex split: 342

No of label swap: 193

no.of edge-swap: 50

no of extra\_labels: 20

The nodes which should be stored for extra labels: [540, 561, 565, 595, 597, 615, 628, 651, 670, 687, 689, 693, 696, 700, 727, 742, 798, 823, 847, 853]

To convert into prufer sequence we take node with id 1 as root node

Prufer Sequence:

[520, 576, 812, 778, 768, 838, 767, 13, 522, 747, 386, 819, 716, 660, 264, 787, 756, 642, 397, 344, 821, 659, 768, 850, 636, 846, 833, 794, 665, 852, 819, 821, 819, 865, 640, 19, 6, 819, 523, 819, 6, 819, 820, 819, 654, 635, 866, 634, 650, 24, 15, 866, 544, 364, 650, 832, 544, 655, 535, 862, 656, 829, 536, 860, 256, 256, 544, 335, 535, 728, 546, 868, 868, 389, 825, 842, 861, 861, 10, 614, 601, 599, 572, 618, 197, 575, 605, 799, 142, 521, 574, 160, 218, 127, 616, 579, 182, 609, 133, 212, 182, 191, 479, 129, 227, 559, 107, 741, 2, 227, 87, 150, 380, 563, 543, 532, 808, 747, 370, 22, 729, 809, 809, 84, 543, 737, 86, 549, 546, 537, 549, 548, 546, 365, 365, 546, 463, 548, 732, 549, 719, 546, 370, 530, 725, 83, 775, 812, 766, 541, 411, 726, 212, 817, 216, 592, 568, 147, 178, 550, 193, 674, 779, 849, 154, 22, 86, 748, 545, 698, 25, 316, 320, 713, 774, 131, 644, 305, 384, 796, 161, 530, 585, 795, 133, 20, 718, 118, 2, 747, 622, 573, 695, 582, 319, 713, 279, 766, 630, 704, 791, 789, 702, 764, 819, 150, 19, 38, 344, 564, 837, 42, 534, 544, 739, 530, 374, 47, 86, 544, 549, 544, 548, 554, 838, 120, 849, 95, 494, 753, 534, 546, 546, 86, 89, 544, 549, 123, 843, 74, 482, 170, 246, 749, 667, 2, 527, 762, 294, 420, 777, 784, 432, 562, 257, 672, 783, 543, 172, 147, 593, 137, 547, 67, 818, 211, 238, 189, 109, 720, 566, 539, 621, 543, 792, 58, 273, 386, 272, 51, 591, 542, 551, 180, 224, 721, 88, 156, 253, 770, 209, 445, 543, 439, 549, 230, 752, 201, 110, 6, 569, 582, 179, 44, 410, 192, 382, 629, 675, 575, 820, 735, 705, 276, 87, 822, 755, 864, 428, 6, 712, 543, 747, 820, 439, 92, 657, 707, 535, 480, 599, 535, 728, 538, 241, 154, 29, 375, 723, 831, 851, 38, 123, 647, 552, 827, 10, 190, 633, 552, 533, 552, 834, 646, 663, 496, 69, 859, 617, 824, 180, 503, 423, 715, 175, 126, 797, 157, 253, 587, 338, 586, 374, 312, 726, 113, 134, 653, 570, 43, 765, 600, 539, 840, 601, 828, 147, 53, 805, 174, 855, 190, 189, 641, 188, 486, 577, 420, 127, 89, 104, 746, 436, 813, 631, 728, 546, 545, 551, 63, 2, 55, 306, 731, 32, 738, 533, 549, 776, 551, 19, 546, 287, 724, 531, 353, 317, 802, 760, 533, 544, 392, 441, 98, 214, 706, 215, 697, 87, 792, 692, 92, 71, 839, 26, 201, 858, 532, 140, 643, 141, 3, 266, 750, 309, 92, 29, 113, 19, 680, 352, 54, 679, 82, 30, 167, 474, 62, 835, 703, 533, 671, 70, 843, 676, 65, 724, 410, 86, 773, 769, 677, 530, 769, 664, 816, 39, 260, 736, 269, 668, 99, 537, 45, 46, 138, 257, 137, 639, 136, 826, 19, 722, 169, 49, 198, 508, 788, 535, 749, 318, 802, 463, 529, 190, 476, 532, 588, 800, 6, 583, 37, 757, 707, 129, 87, 4, 7, 810, 855, 329, 87, 19, 714, 160, 88, 739, 683, 362, 591, 708, 150, 759, 537, 289, 790, 813, 314, 744, 449, 390, 99, 220, 669, 92, 4, 354, 815, 682, 68, 799, 763, 666, 602, 333, 603, 94, 491, 78, 457, 861, 557, 709, 556, 820, 553, 801, 56, 708, 593, 371, 793, 803, 542, 699, 730, 438, 725, 421, 83, 806, 815, 548, 632, 826, 420, 544, 506, 218, 87, 604, 533, 728, 701, 60, 391, 578, 729, 73, 482, 79, 830, 548, 662, 48, 440, 740, 82, 804, 18, 526, 624, 89, 681, 757, 25, 329, 91, 110, 40, 405, 27, 560, 84, 215, 814, 85, 763, 476, 77, 844, 216, 96, 337, 72, 494, 75, 483, 175, 841, 761, 828, 596, 28, 734, 122, 260, 182, 479, 88, 61, 515, 445, 717, 209, 637, 619, 238, 620, 818, 197, 334, 608, 817, 93, 691, 781, 733, 694, 726, 772, 316, 390, 590, 339, 589, 34, 14, 523, 163, 645, 161, 91, 690, 427, 538, 453, 805, 551, 274, 807, 92, 625, 41, 661, 752, 441, 856, 420, 685, 799, 545, 300, 803, 686, 780, 741, 782, 393, 844, 130, 841, 718, 860, 143, 521, 12, 33, 580, 711, 581, 649, 146, 380, 771, 76, 283, 716, 771, 388, 571, 87, 193, 867, 410, 813, 805, 279, 745, 102, 35, 414, 743, 412, 22, 208, 854, 453, 629, 740, 88, 1, 66, 815, 57, 666, 758, 815, 673, 453, 860, 610, 652, 612, 648, 613, 830, 734, 845, 178, 21, 774, 688, 797, 765, 82, 626, 754, 326, 388, 32, 611, 729, 87, 269, 555, 771, 84, 135, 47, 759, 26, 584, 90, 16, 23, 607, 638, 606, 845, 564, 83, 224, 658, 627, 86, 764, 220, 646, 623, 848, 541, 169, 246, 594, 332, 172, 836, 120, 786, 799, 684, 773, 90, 571, 42, 598, 528, 785, 88, 764, 857, 192, 45, 413, 35, 678, 811, 11, 567, 710, 118, 472, 59, 488, 109, 863, 5, 36, 454, 64, 341, 558, 751, 444, 31]

Total number of vertex finally after all partition : 868

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(432, 466)

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(445, 511)

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(98, 712)

(300, 545)

(597, 851)

(496, 630)

(61, 842)

(126, 636)

(46, 769)

(274, 551)

(111, 787)

(352, 680)

(490, 566)

(318, 749)

(9, 576)

(251, 579)

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(180, 634)

(615, 633)

(742, 703)

(663, 631)

(48, 662)

(428, 563)

(65, 676)

(348, 674)

(139, 794)

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(333, 602)

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(245, 574)

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(349, 779)

(30, 738)

(73, 831)

(561, 755)

(196, 655)

(628, 663)

(465, 784)

(798, 537)

(71, 720)

(18, 804)

(263, 559)

(289, 537)

Edges in Be Tree: 2

(88, 505)

(571, 853)

(601, 651)

(320, 363)

(344, 404)

(420, 847)

(806, 823)

(806, 815)