**RESULTS OF s1196**

No of betree: 2

No of vertex split: 1854

No of label swap: 1068

no.of edge-swap: 38

no of extra\_labels: 20

The nodes which should be stored for extra labels: [570, 572, 574, 579, 590, 605, 606, 614, 647, 649, 650, 653, 656, 658, 659, 676, 678, 708, 727, 728]

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

Prufer Sequence:

[392, 815, 746, 394, 180, 24, 456, 831, 13, 547, 745, 726, 735, 85, 690, 449, 447, 367, 97, 456, 419, 774, 641, 791, 129, 841, 232, 809, 556, 553, 733, 52, 10, 555, 63, 646, 733, 826, 729, 848, 553, 83, 571, 571, 78, 772, 822, 53, 105, 423, 752, 109, 99, 98, 551, 110, 773, 838, 840, 840, 550, 554, 350, 807, 351, 848, 354, 843, 383, 845, 845, 847, 825, 849, 851, 852, 358, 854, 854, 854, 854, 854, 854, 854, 795, 710, 710, 154, 717, 561, 561, 561, 767, 548, 380, 25, 438, 165, 423, 755, 557, 555, 789, 558, 448, 762, 20, 552, 381, 49, 555, 553, 554, 801, 738, 54, 448, 555, 413, 733, 555, 784, 737, 95, 826, 554, 798, 167, 272, 209, 836, 726, 214, 526, 784, 180, 74, 623, 601, 787, 205, 555, 260, 228, 592, 220, 239, 615, 616, 808, 135, 134, 531, 253, 138, 844, 729, 245, 816, 619, 629, 239, 635, 156, 155, 154, 641, 270, 240, 271, 277, 563, 635, 321, 52, 310, 190, 270, 814, 553, 25, 584, 548, 555, 78, 596, 557, 757, 558, 389, 571, 234, 793, 178, 552, 179, 688, 318, 461, 593, 9, 186, 655, 567, 567, 559, 598, 287, 388, 633, 648, 781, 555, 455, 663, 797, 165, 609, 194, 688, 419, 788, 571, 549, 211, 553, 471, 672, 795, 202, 336, 751, 553, 441, 207, 677, 776, 779, 662, 301, 216, 679, 4, 219, 449, 573, 687, 808, 398, 351, 208, 707, 625, 854, 494, 719, 398, 7, 484, 594, 205, 786, 552, 553, 20, 552, 556, 200, 107, 555, 222, 778, 190, 560, 229, 215, 1, 599, 172, 613, 222, 577, 805, 750, 245, 808, 234, 486, 806, 210, 790, 494, 233, 271, 633, 36, 667, 652, 852, 565, 744, 680, 481, 804, 675, 835, 557, 502, 60, 828, 691, 685, 563, 661, 104, 753, 692, 835, 337, 66, 65, 819, 552, 704, 733, 554, 553, 713, 825, 566, 47, 568, 790, 770, 379, 44, 660, 724, 554, 558, 558, 389, 726, 560, 560, 295, 761, 764, 767, 564, 552, 737, 553, 552, 557, 651, 80, 445, 734, 571, 106, 603, 576, 220, 830, 794, 591, 418, 729, 171, 568, 604, 693, 479, 806, 640, 371, 218, 830, 76, 75, 504, 551, 177, 330, 126, 127, 706, 608, 552, 62, 277, 378, 253, 542, 146, 580, 137, 136, 841, 221, 813, 638, 53, 246, 565, 824, 567, 550, 64, 174, 554, 555, 285, 419, 26, 50, 51, 765, 38, 5, 853, 25, 564, 384, 844, 573, 785, 553, 46, 301, 20, 317, 484, 694, 114, 461, 799, 740, 83, 594, 187, 2, 35, 298, 763, 657, 31, 742, 587, 683, 187, 30, 192, 686, 160, 549, 286, 754, 738, 79, 780, 68, 67, 730, 749, 748, 193, 330, 636, 368, 251, 281, 383, 703, 493, 567, 670, 559, 669, 558, 559, 554, 793, 25, 401, 112, 120, 121, 124, 125, 612, 700, 161, 498, 20, 760, 558, 668, 787, 115, 578, 128, 531, 639, 718, 643, 474, 480, 447, 817, 107, 631, 714, 620, 11, 768, 748, 49, 167, 94, 93, 399, 412, 671, 796, 618, 716, 622, 382, 747, 731, 583, 674, 783, 204, 338, 510, 123, 846, 565, 131, 842, 133, 357, 815, 702, 554, 712, 207, 812, 538, 90, 513, 758, 550, 602, 856, 607, 792, 760, 510, 725, 821, 182, 569, 101, 102, 689, 600, 831, 221, 554, 834, 169, 695, 213, 328, 597, 737, 28, 228, 701, 229, 697, 217, 796, 459, 113, 215, 696, 216, 575, 642, 720, 562, 850, 449, 522, 802, 807, 481, 52, 417, 52, 753, 118, 119, 705, 265, 720, 15, 41, 240, 133, 14, 40, 634, 366, 611, 480, 310, 741, 756, 291, 389, 54, 423, 207, 443, 79, 594, 681, 208, 498, 586, 823, 16, 42, 582, 698, 627, 377, 159, 158, 721, 643, 53, 27, 588, 559, 57, 58, 775, 82, 81, 739, 29, 171, 59, 172, 390, 55, 86, 87, 682, 595, 10, 271, 9, 167, 823, 753, 30, 654, 426, 566, 465, 269, 488, 20, 139, 709, 493, 148, 149, 358, 617, 468, 418, 52, 619, 565, 71, 72, 336, 223, 699, 585, 723, 48, 244, 536, 132, 839, 233, 108, 769, 6, 186, 365, 260, 545, 150, 540, 33, 245, 140, 350, 488, 141, 359, 152, 151, 541, 144, 354, 145, 624, 711, 628, 810, 143, 494, 855, 133, 239, 513, 238, 534, 487, 811, 18, 530, 581, 27, 153, 154, 269, 371, 644, 722, 272, 855, 251, 837, 219, 736, 8, 525, 211, 465, 800, 221, 820, 147, 490, 848, 190, 734, 27, 451, 829, 61, 503, 441, 827, 401, 771, 665, 52, 666, 440, 664, 399, 626, 505, 20, 610, 803, 673, 394, 637, 376, 645, 720, 247, 580, 246, 100, 321, 798, 769, 74, 399, 174, 833, 178, 818, 773, 806, 766, 70, 69, 47, 348, 487, 476, 73, 820, 386, 732, 749, 394, 826, 589, 338, 621, 715, 632, 37, 12, 526, 201, 832, 759, 107, 684, 476, 157, 719, 777, 476, 482, 4, 743, 34, 410, 92, 713, 630, 782, 411, 43]

Total number of vertex finally after all partition : 856

Edges in Be Tree: 0

(1, 43)

(43, 411)

(411, 782)

(782, 630)

(630, 713)

(713, 92)

(92, 410)

(410, 34)

(34, 743)

(743, 4)

(4, 482)

(482, 476)

(123, 846)

(846, 6)

(6, 186)

(186, 365)

(365, 260)

(260, 545)

(545, 150)

(150, 540)

(540, 33)

(33, 245)

(245, 140)

(140, 350)

(350, 488)

(488, 141)

(141, 359)

(359, 152)

(152, 151)

(151, 541)

(541, 144)

(144, 354)

(354, 145)

(145, 624)

(624, 711)

(711, 628)

(628, 810)

(810, 143)

(143, 494)

(494, 543)

(147, 490)

(18, 530)

(530, 581)

(581, 27)

(27, 53)

(53, 197)

(104, 753)

(753, 30)

(30, 187)

(187, 683)

(683, 587)

(587, 742)

(742, 31)

(57, 58)

(58, 775)

(775, 82)

(82, 81)

(81, 739)

(739, 29)

(29, 171)

(171, 59)

(59, 172)

(172, 390)

(390, 55)

(55, 86)

(86, 87)

(87, 682)

(682, 595)

(595, 10)

(10, 271)

(271, 9)

(9, 167)

(167, 49)

(71, 72)

(72, 336)

(336, 202)

(202, 456)

(456, 24)

(24, 23)

(456, 97)

(97, 96)

(336, 223)

(223, 699)

(699, 585)

(585, 723)

(723, 48)

(48, 244)

(244, 536)

(536, 132)

(132, 839)

(839, 233)

(233, 108)

(108, 769)

(769, 74)

(74, 180)

(180, 22)

(46, 301)

(301, 20)

(20, 610)

(610, 803)

(803, 673)

(673, 394)

(394, 21)

(62, 277)

(277, 378)

(378, 253)

(253, 542)

(542, 146)

(146, 580)

(580, 246)

(246, 100)

(100, 321)

(321, 798)

(798, 323)

(103, 419)

(419, 26)

(26, 50)

(50, 51)

(51, 765)

(765, 68)

(68, 67)

(67, 730)

(730, 749)

(749, 732)

(732, 386)

(283, 438)

(438, 165)

(165, 609)

(609, 337)

(337, 66)

(66, 65)

(65, 819)

(819, 182)

(182, 569)

(569, 101)

(101, 102)

(102, 689)

(689, 600)

(600, 831)

(831, 32)

(295, 761)

(761, 2)

(2, 35)

(35, 298)

(298, 763)

(763, 192)

(192, 686)

(686, 160)

(160, 549)

(549, 286)

(80, 445)

(445, 734)

(734, 190)

(190, 848)

(848, 183)

(502, 60)

(60, 828)

(828, 449)

(449, 88)

(106, 603)

(603, 576)

(576, 220)

(220, 830)

(830, 417)

(417, 52)

(52, 665)

(665, 771)

(771, 401)

(401, 25)

(25, 282)

(379, 44)

(44, 660)

(660, 764)

(764, 780)

(780, 793)

(793, 631)

(631, 714)

(714, 620)

(620, 11)

(11, 768)

(768, 748)

(748, 767)

(767, 278)

(767, 661)

(661, 563)

(563, 599)

(599, 523)

(15, 41)

(41, 240)

(240, 133)

(133, 239)

(239, 513)

(513, 90)

(90, 538)

(538, 812)

(812, 815)

(815, 17)

(815, 357)

(513, 238)

(238, 534)

(534, 487)

(487, 348)

(348, 47)

(47, 69)

(69, 70)

(70, 766)

(766, 806)

(806, 773)

(773, 110)

(110, 206)

(773, 818)

(818, 178)

(178, 833)

(833, 174)

(174, 64)

(174, 399)

(399, 93)

(93, 94)

(468, 418)

(418, 591)

(591, 679)

(679, 471)

(471, 453)

(783, 204)

(204, 338)

(338, 589)

(589, 826)

(826, 95)

(95, 320)

(826, 176)

(338, 621)

(621, 715)

(715, 632)

(632, 37)

(37, 12)

(12, 526)

(526, 201)

(201, 832)

(832, 759)

(759, 107)

(107, 200)

(200, 512)

(169, 695)

(695, 213)

(213, 328)

(328, 597)

(597, 737)

(737, 28)

(28, 228)

(228, 701)

(701, 229)

(229, 697)

(697, 217)

(217, 796)

(796, 459)

(459, 113)

(113, 215)

(215, 696)

(696, 216)

(216, 575)

(575, 642)

(642, 720)

(720, 247)

(720, 265)

(265, 705)

(705, 119)

(119, 118)

(522, 802)

(802, 807)

(807, 481)

(481, 577)

(577, 222)

(222, 528)

(16, 42)

(42, 582)

(582, 698)

(698, 627)

(627, 377)

(377, 159)

(159, 158)

(158, 721)

(721, 643)

(643, 718)

(718, 639)

(639, 531)

(531, 128)

(128, 578)

(578, 115)

(461, 114)

(114, 694)

(694, 484)

(484, 7)

(7, 398)

(398, 499)

(484, 317)

(691, 596)

(596, 78)

(78, 191)

(762, 657)

(762, 297)

(691, 218)

(461, 799)

(799, 510)

(510, 725)

(725, 821)

(821, 221)

(221, 820)

(820, 73)

(73, 855)

(855, 272)

(272, 722)

(722, 644)

(644, 371)

(371, 640)

(640, 690)

(690, 85)

(85, 84)

(371, 269)

(269, 841)

(841, 129)

(841, 136)

(136, 137)

(137, 706)

(706, 127)

(127, 126)

(339, 205)

(205, 786)

(786, 760)

(760, 792)

(792, 607)

(607, 817)

(817, 447)

(447, 89)

(447, 790)

(790, 646)

(646, 63)

(63, 173)

(790, 210)

(451, 829)

(829, 61)

(61, 503)

(503, 441)

(441, 827)

(269, 154)

(154, 153)

(154, 155)

(155, 156)

(156, 369)

(154, 268)

(221, 800)

(800, 465)

(465, 566)

(566, 633)

(633, 547)

(547, 13)

(13, 39)

(157, 719)

(719, 497)

(712, 207)

(207, 423)

(423, 54)

(54, 309)

(54, 389)

(389, 291)

(291, 756)

(756, 741)

(741, 310)

(310, 391)

(310, 480)

(480, 611)

(611, 366)

(366, 634)

(634, 40)

(40, 14)

(14, 836)

(836, 209)

(480, 474)

(474, 789)

(789, 293)

(389, 655)

(655, 425)

(423, 105)

(105, 198)

(423, 288)

(207, 443)

(443, 79)

(79, 594)

(594, 83)

(83, 740)

(740, 755)

(755, 289)

(594, 681)

(681, 208)

(208, 498)

(498, 161)

(161, 700)

(700, 612)

(612, 125)

(125, 124)

(124, 121)

(121, 120)

(120, 112)

(112, 784)

(784, 331)

(784, 316)

(498, 586)

(586, 823)

(208, 351)

(351, 232)

(232, 130)

(594, 500)

(79, 738)

(738, 308)

(738, 754)

(207, 462)

(712, 814)

(814, 270)

(270, 393)

(426, 654)

(719, 777)

(633, 388)

(388, 287)

(465, 211)

(211, 525)

(525, 8)

(8, 736)

(736, 219)

(219, 837)

(837, 251)

(251, 368)

(368, 636)

(636, 330)

(330, 177)

(177, 551)

(551, 98)

(98, 99)

(99, 109)

(109, 203)

(413, 313)

(551, 504)

(504, 75)

(75, 76)

(330, 193)

(211, 450)

(461, 318)

(531, 134)

(134, 135)

(807, 231)

(720, 645)

(645, 376)

(264, 795)

(795, 412)

(412, 671)

(795, 455)

(737, 667)

(667, 36)

(107, 684)

(526, 214)

(783, 674)

(674, 583)

(583, 731)

(731, 747)

(747, 382)

(468, 617)

(617, 358)

(358, 149)

(149, 148)

(148, 493)

(493, 703)

(703, 383)

(383, 241)

(383, 281)

(440, 664)

(440, 666)

(493, 709)

(709, 139)

(139, 844)

(844, 384)

(844, 138)

(138, 355)

(492, 625)

(358, 255)

(806, 479)

(479, 688)

(688, 179)

(688, 194)

(806, 486)

(486, 234)

(47, 635)

(635, 367)

(367, 91)

(635, 381)

(381, 302)

(563, 380)

(380, 280)

(190, 392)

(549, 448)

(448, 296)

(448, 311)

(165, 284)

(419, 285)

(20, 505)

(505, 626)

(626, 853)

(853, 5)

(5, 38)

(488, 842)

(842, 131)

(27, 734)

(27, 451)

(30, 654)

(31, 657)

(49, 303)

(49, 748)

(52, 666)

(52, 418)

(52, 481)

(53, 643)

(566, 426)

(74, 399)

(580, 247)

(167, 823)

(218, 830)

(230, 350)

(235, 848)

(236, 354)

(625, 713)

(286, 754)

(664, 399)

(671, 796)

(319, 737)

(684, 476)

(386, 820)

(394, 749)

(394, 826)

(401, 827)

(413, 793)

(753, 831)

(753, 823)

(760, 510)

(769, 798)

(777, 476)

(449, 522)

(476, 487)

(490, 848)

(494, 855)

Edges in Be Tree: 1

(1, 521)

(548, 36)

(548, 279)

(548, 400)

(3, 392)

(4, 472)

(550, 602)

(550, 226)

(550, 728)

(550, 758)

(9, 422)

(10, 168)

(20, 299)

(20, 785)

(20, 508)

(20, 843)

(552, 608)

(552, 613)

(552, 300)

(552, 663)

(552, 675)

(552, 415)

(552, 506)

(552, 509)

(553, 163)

(553, 184)

(553, 623)

(553, 305)

(553, 672)

(553, 395)

(553, 751)

(553, 452)

(553, 458)

(553, 507)

(25, 396)

(25, 745)

(25, 781)

(554, 227)

(554, 616)

(554, 650)

(554, 306)

(554, 322)

(554, 702)

(554, 733)

(554, 779)

(554, 822)

(554, 834)

(555, 170)

(555, 285)

(555, 292)

(555, 304)

(555, 312)

(555, 315)

(555, 340)

(555, 735)

(555, 402)

(555, 434)

(555, 514)

(556, 162)

(556, 652)

(556, 511)

(557, 592)

(557, 651)

(557, 290)

(557, 676)

(557, 404)

(558, 652)

(558, 653)

(558, 294)

(558, 668)

(558, 669)

(558, 406)

(558, 788)

(559, 588)

(559, 670)

(559, 429)

(559, 778)

(560, 658)

(560, 659)

(560, 518)

(561, 274)

(561, 275)

(561, 276)

(561, 852)

(562, 825)

(562, 850)

(38, 744)

(45, 745)

(564, 662)

(564, 746)

(564, 384)

(565, 570)

(565, 619)

(565, 804)

(565, 724)

(52, 166)

(52, 387)

(53, 638)

(56, 726)

(567, 670)

(567, 427)

(567, 428)

(567, 774)

(567, 727)

(64, 729)

(568, 604)

(568, 641)

(568, 687)

(76, 692)

(77, 735)

(78, 403)

(83, 185)

(571, 188)

(571, 189)

(571, 677)

(571, 446)

(571, 408)

(572, 744)

(573, 785)

(573, 477)

(573, 750)

(107, 791)

(111, 774)

(116, 641)

(117, 791)

(122, 129)

(579, 804)

(131, 805)

(133, 847)

(133, 808)

(135, 352)

(142, 809)

(153, 850)

(164, 733)

(584, 675)

(584, 397)

(167, 324)

(171, 685)

(172, 524)

(588, 840)

(175, 733)

(590, 835)

(178, 414)

(179, 416)

(180, 332)

(181, 729)

(592, 343)

(593, 421)

(186, 424)

(187, 757)

(190, 517)

(598, 685)

(193, 770)

(194, 439)

(195, 772)

(196, 822)

(601, 334)

(602, 856)

(199, 752)

(604, 693)

(605, 692)

(205, 501)

(606, 835)

(209, 326)

(210, 539)

(212, 838)

(214, 329)

(215, 520)

(216, 470)

(608, 704)

(219, 473)

(220, 344)

(221, 707)

(222, 515)

(224, 840)

(225, 840)

(228, 342)

(229, 519)

(614, 704)

(233, 544)

(234, 537)

(234, 409)

(615, 733)

(237, 843)

(618, 716)

(618, 797)

(239, 364)

(239, 345)

(240, 373)

(619, 362)

(619, 845)

(242, 845)

(243, 845)

(622, 716)

(622, 382)

(245, 360)

(245, 533)

(246, 717)

(623, 333)

(248, 847)

(249, 825)

(250, 849)

(251, 851)

(252, 851)

(253, 353)

(254, 852)

(629, 825)

(629, 363)

(256, 854)

(257, 854)

(258, 854)

(259, 854)

(260, 341)

(261, 854)

(262, 854)

(263, 854)

(637, 854)

(638, 710)

(266, 710)

(267, 710)

(641, 370)

(270, 372)

(271, 374)

(271, 546)

(272, 325)

(273, 717)

(277, 375)

(647, 770)

(648, 432)

(287, 431)

(656, 726)

(301, 469)

(662, 467)

(307, 801)

(668, 787)

(669, 776)

(672, 454)

(314, 733)

(317, 752)

(678, 794)

(321, 385)

(680, 729)

(327, 726)

(687, 478)

(702, 813)

(349, 808)

(351, 489)

(707, 491)

(356, 729)

(357, 809)

(389, 407)

(726, 824)

(398, 485)

(405, 757)

(750, 532)

(419, 442)

(433, 781)

(435, 455)

(437, 797)

(441, 460)

(444, 788)

(776, 464)

(449, 475)

(778, 516)

(805, 529)

(483, 808)

(808, 535)

(811, 849)

(494, 496)

(495, 854)

(104, 601)

(502, 593)

(57, 559)

(816, 758)

(71, 565)

(436, 663)

(379, 648)

(281, 772)

(457, 751)

(466, 779)

(335, 787)

(46, 553)

(574, 680)

(15, 835)

(430, 598)

(527, 613)

(346, 615)

(347, 616)

(708, 813)

(80, 651)

(94, 794)

(376, 637)

(463, 677)

(169, 824)

(649, 724)

(62, 552)

(115, 787)

(16, 838)

(19, 746)

(157, 856)

(295, 560)

(126, 693)

(118, 834)

(361, 816)

(106, 571)

(123, 801)

(18, 811)

(147, 852)

Edges in Be Tree: 2

(318, 420)