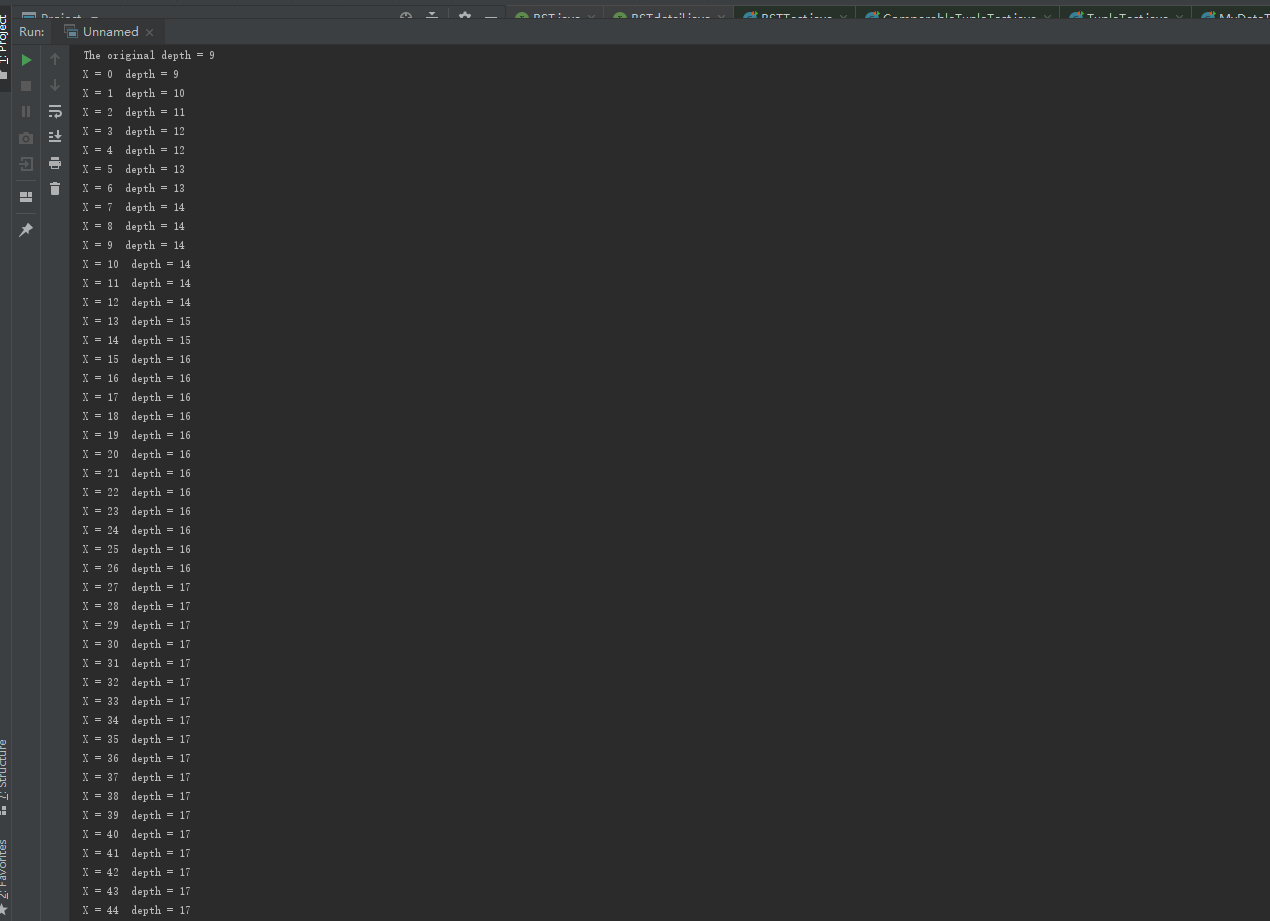
Conclusion of Assignment 5

**1.Firstly, I set N = 500 M = 1000 and X =1000 , and record the depth after every insert and delete. I got the data on next page.**



The original depth = 9

X = 0 depth = 9

X = 1 depth = 10

X = 2 depth = 11

X = 3 depth = 12

X = 4 depth = 12

X = 5 depth = 13

X = 6 depth = 13

X = 7 depth = 14

X = 8 depth = 14

X = 9 depth = 14

X = 10 depth = 14

X = 11 depth = 14

X = 12 depth = 14

X = 13 depth = 15

X = 14 depth = 15

X = 15 depth = 16

X = 16 depth = 16

X = 17 depth = 16

X = 18 depth = 16

X = 19 depth = 16

X = 20 depth = 16

X = 21 depth = 16

X = 22 depth = 16

X = 23 depth = 16

X = 24 depth = 16

X = 25 depth = 16

X = 26 depth = 16

X = 27 depth = 17

X = 28 depth = 17

X = 29 depth = 17

X = 30 depth = 17

X = 31 depth = 17

X = 32 depth = 17

X = 33 depth = 17

X = 34 depth = 17

X = 35 depth = 17

X = 36 depth = 17

X = 37 depth = 17

X = 38 depth = 17

X = 39 depth = 17

X = 40 depth = 17

X = 41 depth = 17

X = 42 depth = 17

X = 43 depth = 17

X = 44 depth = 17

X = 45 depth = 18

X = 46 depth = 18

X = 47 depth = 18

X = 48 depth = 18

X = 49 depth = 18

X = 50 depth = 18

X = 51 depth = 18

X = 52 depth = 18

X = 53 depth = 18

X = 54 depth = 18

X = 55 depth = 18

X = 56 depth = 18

X = 57 depth = 18

X = 58 depth = 17

X = 59 depth = 17

X = 60 depth = 17

X = 61 depth = 17

X = 62 depth = 17

X = 63 depth = 17

X = 64 depth = 17

X = 65 depth = 18

X = 66 depth = 18

X = 67 depth = 18

X = 68 depth = 18

X = 69 depth = 18

X = 70 depth = 18

X = 71 depth = 18

X = 72 depth = 18

X = 73 depth = 18

X = 74 depth = 18

X = 75 depth = 18

X = 76 depth = 18

X = 77 depth = 18

X = 78 depth = 18

X = 79 depth = 18

X = 80 depth = 18

X = 81 depth = 18

X = 82 depth = 18

X = 83 depth = 18

X = 84 depth = 18

X = 85 depth = 18

X = 86 depth = 18

X = 87 depth = 18

X = 88 depth = 18

X = 89 depth = 18

X = 90 depth = 18

X = 91 depth = 18

X = 92 depth = 18

X = 93 depth = 18

X = 94 depth = 18

X = 95 depth = 18

X = 96 depth = 18

X = 97 depth = 18

X = 98 depth = 18

X = 99 depth = 18

X = 100 depth = 18

X = 101 depth = 18

X = 102 depth = 18

X = 103 depth = 18

X = 104 depth = 18

X = 105 depth = 18

X = 106 depth = 18

X = 107 depth = 18

X = 108 depth = 18

X = 109 depth = 18

X = 110 depth = 19

X = 111 depth = 19

X = 112 depth = 19

X = 113 depth = 19

X = 114 depth = 19

X = 115 depth = 19

X = 116 depth = 19

X = 117 depth = 19

X = 118 depth = 19

X = 119 depth = 19

X = 120 depth = 19

X = 121 depth = 19

X = 122 depth = 19

X = 123 depth = 19

X = 124 depth = 19

X = 125 depth = 19

X = 126 depth = 19

X = 127 depth = 19

X = 128 depth = 19

X = 129 depth = 19

X = 130 depth = 19

X = 131 depth = 19

X = 132 depth = 19

X = 133 depth = 19

X = 134 depth = 19

X = 135 depth = 19

X = 136 depth = 19

X = 137 depth = 19

X = 138 depth = 19

X = 139 depth = 19

X = 140 depth = 19

X = 141 depth = 19

X = 142 depth = 19

X = 143 depth = 19

X = 144 depth = 19

X = 145 depth = 19

X = 146 depth = 19

X = 147 depth = 19

X = 148 depth = 19

X = 149 depth = 19

X = 150 depth = 19

X = 151 depth = 19

X = 152 depth = 19

X = 153 depth = 19

X = 154 depth = 19

X = 155 depth = 19

X = 156 depth = 19

X = 157 depth = 19

X = 158 depth = 19

X = 159 depth = 19

X = 160 depth = 19

X = 161 depth = 19

X = 162 depth = 19

X = 163 depth = 19

X = 164 depth = 19

X = 165 depth = 19

X = 166 depth = 19

X = 167 depth = 19

X = 168 depth = 20

X = 169 depth = 20

X = 170 depth = 20

X = 171 depth = 20

X = 172 depth = 20

X = 173 depth = 20

X = 174 depth = 20

X = 175 depth = 20

X = 176 depth = 20

X = 177 depth = 20

X = 178 depth = 20

X = 179 depth = 20

X = 180 depth = 20

X = 181 depth = 20

X = 182 depth = 20

X = 183 depth = 20

X = 184 depth = 20

X = 185 depth = 20

X = 186 depth = 20

X = 187 depth = 20

X = 188 depth = 20

X = 189 depth = 19

X = 190 depth = 19

X = 191 depth = 19

X = 192 depth = 19

X = 193 depth = 19

X = 194 depth = 19

X = 195 depth = 19

X = 196 depth = 19

X = 197 depth = 19

X = 198 depth = 19

X = 199 depth = 19

X = 200 depth = 19

X = 201 depth = 19

X = 202 depth = 19

X = 203 depth = 19

X = 204 depth = 19

X = 205 depth = 19

X = 206 depth = 19

X = 207 depth = 19

X = 208 depth = 19

X = 209 depth = 19

X = 210 depth = 19

X = 211 depth = 19

X = 212 depth = 19

X = 213 depth = 19

X = 214 depth = 19

X = 215 depth = 19

X = 216 depth = 19

X = 217 depth = 19

X = 218 depth = 19

X = 219 depth = 19

X = 220 depth = 19

X = 221 depth = 19

X = 222 depth = 19

X = 223 depth = 19

X = 224 depth = 19

X = 225 depth = 19

X = 226 depth = 19

X = 227 depth = 20

X = 228 depth = 20

X = 229 depth = 20

X = 230 depth = 20

X = 231 depth = 20

X = 232 depth = 20

X = 233 depth = 20

X = 234 depth = 20

X = 235 depth = 20

X = 236 depth = 20

X = 237 depth = 20

X = 238 depth = 20

X = 239 depth = 20

X = 240 depth = 20

X = 241 depth = 20

X = 242 depth = 20

X = 243 depth = 20

X = 244 depth = 20

X = 245 depth = 20

X = 246 depth = 20

X = 247 depth = 20

X = 248 depth = 20

X = 249 depth = 20

X = 250 depth = 20

X = 251 depth = 20

X = 252 depth = 20

X = 253 depth = 20

X = 254 depth = 20

X = 255 depth = 20

X = 256 depth = 20

X = 257 depth = 20

X = 258 depth = 20

X = 259 depth = 20

X = 260 depth = 20

X = 261 depth = 20

X = 262 depth = 20

X = 263 depth = 20

X = 264 depth = 20

X = 265 depth = 20

X = 266 depth = 20

X = 267 depth = 20

X = 268 depth = 20

X = 269 depth = 20

X = 270 depth = 20

X = 271 depth = 20

X = 272 depth = 20

X = 273 depth = 20

X = 274 depth = 20

X = 275 depth = 20

X = 276 depth = 20

X = 277 depth = 20

X = 278 depth = 20

X = 279 depth = 20

X = 280 depth = 20

X = 281 depth = 20

X = 282 depth = 20

X = 283 depth = 20

X = 284 depth = 20

X = 285 depth = 20

X = 286 depth = 20

X = 287 depth = 20

X = 288 depth = 20

X = 289 depth = 20

X = 290 depth = 20

X = 291 depth = 20

X = 292 depth = 20

X = 293 depth = 20

X = 294 depth = 20

X = 295 depth = 20

X = 296 depth = 20

X = 297 depth = 20

X = 298 depth = 20

X = 299 depth = 20

X = 300 depth = 20

X = 301 depth = 20

X = 302 depth = 20

X = 303 depth = 20

X = 304 depth = 20

X = 305 depth = 20

X = 306 depth = 20

X = 307 depth = 20

X = 308 depth = 20

X = 309 depth = 20

X = 310 depth = 20

X = 311 depth = 20

X = 312 depth = 20

X = 313 depth = 20

X = 314 depth = 20

X = 315 depth = 20

X = 316 depth = 20

X = 317 depth = 20

X = 318 depth = 20

X = 319 depth = 20

X = 320 depth = 20

X = 321 depth = 20

X = 322 depth = 20

X = 323 depth = 20

X = 324 depth = 20

X = 325 depth = 20

X = 326 depth = 20

X = 327 depth = 20

X = 328 depth = 20

X = 329 depth = 20

X = 330 depth = 20

X = 331 depth = 20

X = 332 depth = 20

X = 333 depth = 20

X = 334 depth = 20

X = 335 depth = 20

X = 336 depth = 20

X = 337 depth = 20

X = 338 depth = 20

X = 339 depth = 20

X = 340 depth = 20

X = 341 depth = 20

X = 342 depth = 20

X = 343 depth = 21

X = 344 depth = 21

X = 345 depth = 21

X = 346 depth = 20

X = 347 depth = 20

X = 348 depth = 20

X = 349 depth = 20

X = 350 depth = 20

X = 351 depth = 20

X = 352 depth = 20

X = 353 depth = 20

X = 354 depth = 20

X = 355 depth = 20

X = 356 depth = 20

X = 357 depth = 20

X = 358 depth = 20

X = 359 depth = 20

X = 360 depth = 20

X = 361 depth = 20

X = 362 depth = 20

X = 363 depth = 20

X = 364 depth = 21

X = 365 depth = 21

X = 366 depth = 21

X = 367 depth = 21

X = 368 depth = 21

X = 369 depth = 21

X = 370 depth = 21

X = 371 depth = 21

X = 372 depth = 21

X = 373 depth = 21

X = 374 depth = 21

X = 375 depth = 21

X = 376 depth = 21

X = 377 depth = 21

X = 378 depth = 21

X = 379 depth = 21

X = 380 depth = 21

X = 381 depth = 21

X = 382 depth = 21

X = 383 depth = 21

X = 384 depth = 21

X = 385 depth = 21

X = 386 depth = 21

X = 387 depth = 21

X = 388 depth = 21

X = 389 depth = 21

X = 390 depth = 21

X = 391 depth = 21

X = 392 depth = 21

X = 393 depth = 21

X = 394 depth = 21

X = 395 depth = 21

X = 396 depth = 21

X = 397 depth = 21

X = 398 depth = 21

X = 399 depth = 21

X = 400 depth = 21

X = 401 depth = 21

X = 402 depth = 21

X = 403 depth = 21

X = 404 depth = 21

X = 405 depth = 21

X = 406 depth = 21

X = 407 depth = 21

X = 408 depth = 21

X = 409 depth = 21

X = 410 depth = 21

X = 411 depth = 21

X = 412 depth = 21

X = 413 depth = 21

X = 414 depth = 21

X = 415 depth = 21

X = 416 depth = 21

X = 417 depth = 21

X = 418 depth = 21

X = 419 depth = 21

X = 420 depth = 21

X = 421 depth = 21

X = 422 depth = 21

X = 423 depth = 21

X = 424 depth = 21

X = 425 depth = 21

X = 426 depth = 21

X = 427 depth = 21

X = 428 depth = 21

X = 429 depth = 21

X = 430 depth = 21

X = 431 depth = 21

X = 432 depth = 21

X = 433 depth = 21

X = 434 depth = 21

X = 435 depth = 22

X = 436 depth = 22

X = 437 depth = 22

X = 438 depth = 22

X = 439 depth = 22

X = 440 depth = 22

X = 441 depth = 22

X = 442 depth = 22

X = 443 depth = 22

X = 444 depth = 22

X = 445 depth = 22

X = 446 depth = 22

X = 447 depth = 22

X = 448 depth = 22

X = 449 depth = 22

X = 450 depth = 22

X = 451 depth = 22

X = 452 depth = 22

X = 453 depth = 22

X = 454 depth = 22

X = 455 depth = 22

X = 456 depth = 22

X = 457 depth = 22

X = 458 depth = 22

X = 459 depth = 22

X = 460 depth = 22

X = 461 depth = 22

X = 462 depth = 22

X = 463 depth = 22

X = 464 depth = 22

X = 465 depth = 22

X = 466 depth = 22

X = 467 depth = 22

X = 468 depth = 22

X = 469 depth = 22

X = 470 depth = 22

X = 471 depth = 22

X = 472 depth = 22

X = 473 depth = 22

X = 474 depth = 22

X = 475 depth = 22

X = 476 depth = 22

X = 477 depth = 22

X = 478 depth = 22

X = 479 depth = 22

X = 480 depth = 22

X = 481 depth = 22

X = 482 depth = 22

X = 483 depth = 22

X = 484 depth = 22

X = 485 depth = 22

X = 486 depth = 22

X = 487 depth = 22

X = 488 depth = 22

X = 489 depth = 23

X = 490 depth = 23

X = 491 depth = 23

X = 492 depth = 23

X = 493 depth = 23

X = 494 depth = 23

X = 495 depth = 23

X = 496 depth = 23

X = 497 depth = 23

X = 498 depth = 23

X = 499 depth = 23

X = 500 depth = 23

X = 501 depth = 23

X = 502 depth = 23

X = 503 depth = 23

X = 504 depth = 23

X = 505 depth = 23

X = 506 depth = 23

X = 507 depth = 23

X = 508 depth = 23

X = 509 depth = 23

X = 510 depth = 23

X = 511 depth = 23

X = 512 depth = 23

X = 513 depth = 23

X = 514 depth = 23

X = 515 depth = 23

X = 516 depth = 23

X = 517 depth = 23

X = 518 depth = 23

X = 519 depth = 23

X = 520 depth = 23

X = 521 depth = 23

X = 522 depth = 23

X = 523 depth = 23

X = 524 depth = 23

X = 525 depth = 23

X = 526 depth = 23

X = 527 depth = 23

X = 528 depth = 23

X = 529 depth = 23

X = 530 depth = 23

X = 531 depth = 23

X = 532 depth = 23

X = 533 depth = 23

X = 534 depth = 23

X = 535 depth = 23

X = 536 depth = 23

X = 537 depth = 23

X = 538 depth = 23

X = 539 depth = 23

X = 540 depth = 23

X = 541 depth = 23

X = 542 depth = 23

X = 543 depth = 23

X = 544 depth = 23

X = 545 depth = 23

X = 546 depth = 23

X = 547 depth = 23

X = 548 depth = 23

X = 549 depth = 23

X = 550 depth = 23

X = 551 depth = 23

X = 552 depth = 23

X = 553 depth = 23

X = 554 depth = 23

X = 555 depth = 23

X = 556 depth = 23

X = 557 depth = 23

X = 558 depth = 23

X = 559 depth = 23

X = 560 depth = 23

X = 561 depth = 23

X = 562 depth = 23

X = 563 depth = 23

X = 564 depth = 23

X = 565 depth = 23

X = 566 depth = 23

X = 567 depth = 23

X = 568 depth = 23

X = 569 depth = 23

X = 570 depth = 23

X = 571 depth = 23

X = 572 depth = 23

X = 573 depth = 23

X = 574 depth = 23

X = 575 depth = 23

X = 576 depth = 23

X = 577 depth = 23

X = 578 depth = 23

X = 579 depth = 23

X = 580 depth = 23

X = 581 depth = 23

X = 582 depth = 23

X = 583 depth = 23

X = 584 depth = 23

X = 585 depth = 23

X = 586 depth = 23

X = 587 depth = 23

X = 588 depth = 23

X = 589 depth = 23

X = 590 depth = 23

X = 591 depth = 23

X = 592 depth = 23

X = 593 depth = 23

X = 594 depth = 23

X = 595 depth = 23

X = 596 depth = 23

X = 597 depth = 23

X = 598 depth = 23

X = 599 depth = 23

X = 600 depth = 23

X = 601 depth = 23

X = 602 depth = 23

X = 603 depth = 23

X = 604 depth = 23

X = 605 depth = 23

X = 606 depth = 23

X = 607 depth = 23

X = 608 depth = 23

X = 609 depth = 23

X = 610 depth = 23

X = 611 depth = 23

X = 612 depth = 23

X = 613 depth = 23

X = 614 depth = 23

X = 615 depth = 23

X = 616 depth = 23

X = 617 depth = 23

X = 618 depth = 23

X = 619 depth = 23

X = 620 depth = 23

X = 621 depth = 23

X = 622 depth = 23

X = 623 depth = 23

X = 624 depth = 23

X = 625 depth = 23

X = 626 depth = 23

X = 627 depth = 23

X = 628 depth = 23

X = 629 depth = 23

X = 630 depth = 23

X = 631 depth = 23

X = 632 depth = 23

X = 633 depth = 23

X = 634 depth = 23

X = 635 depth = 23

X = 636 depth = 23

X = 637 depth = 23

X = 638 depth = 23

X = 639 depth = 23

X = 640 depth = 23

X = 641 depth = 23

X = 642 depth = 23

X = 643 depth = 23

X = 644 depth = 23

X = 645 depth = 23

X = 646 depth = 23

X = 647 depth = 23

X = 648 depth = 23

X = 649 depth = 23

X = 650 depth = 23

X = 651 depth = 23

X = 652 depth = 23

X = 653 depth = 23

X = 654 depth = 23

X = 655 depth = 23

X = 656 depth = 23

X = 657 depth = 23

X = 658 depth = 23

X = 659 depth = 23

X = 660 depth = 23

X = 661 depth = 23

X = 662 depth = 23

X = 663 depth = 23

X = 664 depth = 23

X = 665 depth = 23

X = 666 depth = 23

X = 667 depth = 23

X = 668 depth = 23

X = 669 depth = 23

X = 670 depth = 23

X = 671 depth = 23

X = 672 depth = 23

X = 673 depth = 23

X = 674 depth = 23

X = 675 depth = 23

X = 676 depth = 23

X = 677 depth = 23

X = 678 depth = 23

X = 679 depth = 23

X = 680 depth = 23

X = 681 depth = 23

X = 682 depth = 23

X = 683 depth = 23

X = 684 depth = 23

X = 685 depth = 23

X = 686 depth = 23

X = 687 depth = 23

X = 688 depth = 23

X = 689 depth = 23

X = 690 depth = 23

X = 691 depth = 23

X = 692 depth = 23

X = 693 depth = 23

X = 694 depth = 23

X = 695 depth = 23

X = 696 depth = 23

X = 697 depth = 23

X = 698 depth = 23

X = 699 depth = 23

X = 700 depth = 23

X = 701 depth = 23

X = 702 depth = 23

X = 703 depth = 23

X = 704 depth = 23

X = 705 depth = 23

X = 706 depth = 23

X = 707 depth = 23

X = 708 depth = 23

X = 709 depth = 23

X = 710 depth = 23

X = 711 depth = 23

X = 712 depth = 23

X = 713 depth = 23

X = 714 depth = 23

X = 715 depth = 23

X = 716 depth = 23

X = 717 depth = 23

X = 718 depth = 23

X = 719 depth = 23

X = 720 depth = 23

X = 721 depth = 23

X = 722 depth = 23

X = 723 depth = 23

X = 724 depth = 23

X = 725 depth = 23

X = 726 depth = 23

X = 727 depth = 23

X = 728 depth = 23

X = 729 depth = 23

X = 730 depth = 23

X = 731 depth = 23

X = 732 depth = 23

X = 733 depth = 23

X = 734 depth = 23

X = 735 depth = 23

X = 736 depth = 23

X = 737 depth = 23

X = 738 depth = 23

X = 739 depth = 23

X = 740 depth = 23

X = 741 depth = 23

X = 742 depth = 23

X = 743 depth = 23

X = 744 depth = 23

X = 745 depth = 23

X = 746 depth = 23

X = 747 depth = 23

X = 748 depth = 23

X = 749 depth = 23

X = 750 depth = 23

X = 751 depth = 23

X = 752 depth = 23

X = 753 depth = 23

X = 754 depth = 23

X = 755 depth = 23

X = 756 depth = 23

X = 757 depth = 23

X = 758 depth = 23

X = 759 depth = 23

X = 760 depth = 23

X = 761 depth = 23

X = 762 depth = 23

X = 763 depth = 23

X = 764 depth = 23

X = 765 depth = 23

X = 766 depth = 23

X = 767 depth = 23

X = 768 depth = 23

X = 769 depth = 23

X = 770 depth = 23

X = 771 depth = 23

X = 772 depth = 23

X = 773 depth = 23

X = 774 depth = 23

X = 775 depth = 23

X = 776 depth = 23

X = 777 depth = 23

X = 778 depth = 23

X = 779 depth = 23

X = 780 depth = 23

X = 781 depth = 23

X = 782 depth = 23

X = 783 depth = 23

X = 784 depth = 23

X = 785 depth = 23

X = 786 depth = 23

X = 787 depth = 23

X = 788 depth = 23

X = 789 depth = 23

X = 790 depth = 23

X = 791 depth = 23

X = 792 depth = 23

X = 793 depth = 23

X = 794 depth = 23

X = 795 depth = 23

X = 796 depth = 23

X = 797 depth = 23

X = 798 depth = 23

X = 799 depth = 23

X = 800 depth = 23

X = 801 depth = 23

X = 802 depth = 23

X = 803 depth = 23

X = 804 depth = 23

X = 805 depth = 23

X = 806 depth = 23

X = 807 depth = 23

X = 808 depth = 23

X = 809 depth = 23

X = 810 depth = 23

X = 811 depth = 23

X = 812 depth = 23

X = 813 depth = 23

X = 814 depth = 23

X = 815 depth = 23

X = 816 depth = 23

X = 817 depth = 23

X = 818 depth = 23

X = 819 depth = 23

X = 820 depth = 23

X = 821 depth = 23

X = 822 depth = 23

X = 823 depth = 23

X = 824 depth = 23

X = 825 depth = 23

X = 826 depth = 23

X = 827 depth = 23

X = 828 depth = 23

X = 829 depth = 23

X = 830 depth = 23

X = 831 depth = 23

X = 832 depth = 23

X = 833 depth = 23

X = 834 depth = 23

X = 835 depth = 23

X = 836 depth = 23

X = 837 depth = 23

X = 838 depth = 23

X = 839 depth = 23

X = 840 depth = 23

X = 841 depth = 23

X = 842 depth = 23

X = 843 depth = 23

X = 844 depth = 23

X = 845 depth = 23

X = 846 depth = 23

X = 847 depth = 23

X = 848 depth = 23

X = 849 depth = 23

X = 850 depth = 23

X = 851 depth = 23

X = 852 depth = 23

X = 853 depth = 23

X = 854 depth = 23

X = 855 depth = 23

X = 856 depth = 23

X = 857 depth = 23

X = 858 depth = 23

X = 859 depth = 23

X = 860 depth = 23

X = 861 depth = 23

X = 862 depth = 23

X = 863 depth = 23

X = 864 depth = 23

X = 865 depth = 23

X = 866 depth = 23

X = 867 depth = 23

X = 868 depth = 23

X = 869 depth = 23

X = 870 depth = 23

X = 871 depth = 23

X = 872 depth = 23

X = 873 depth = 23

X = 874 depth = 23

X = 875 depth = 23

X = 876 depth = 23

X = 877 depth = 23

X = 878 depth = 23

X = 879 depth = 23

X = 880 depth = 23

X = 881 depth = 23

X = 882 depth = 23

X = 883 depth = 23

X = 884 depth = 23

X = 885 depth = 23

X = 886 depth = 23

X = 887 depth = 23

X = 888 depth = 23

X = 889 depth = 23

X = 890 depth = 23

X = 891 depth = 23

X = 892 depth = 23

X = 893 depth = 23

X = 894 depth = 23

X = 895 depth = 23

X = 896 depth = 23

X = 897 depth = 23

X = 898 depth = 23

X = 899 depth = 23

X = 900 depth = 23

X = 901 depth = 23

X = 902 depth = 23

X = 903 depth = 23

X = 904 depth = 23

X = 905 depth = 23

X = 906 depth = 23

X = 907 depth = 23

X = 908 depth = 23

X = 909 depth = 23

X = 910 depth = 23

X = 911 depth = 23

X = 912 depth = 23

X = 913 depth = 23

X = 914 depth = 23

X = 915 depth = 23

X = 916 depth = 23

X = 917 depth = 23

X = 918 depth = 23

X = 919 depth = 23

X = 920 depth = 23

X = 921 depth = 23

X = 922 depth = 23

X = 923 depth = 23

X = 924 depth = 23

X = 925 depth = 23

X = 926 depth = 23

X = 927 depth = 23

X = 928 depth = 23

X = 929 depth = 23

X = 930 depth = 23

X = 931 depth = 23

X = 932 depth = 23

X = 933 depth = 23

X = 934 depth = 23

X = 935 depth = 23

X = 936 depth = 23

X = 937 depth = 23

X = 938 depth = 23

X = 939 depth = 23

X = 940 depth = 23

X = 941 depth = 23

X = 942 depth = 23

X = 943 depth = 23

X = 944 depth = 23

X = 945 depth = 23

X = 946 depth = 23

X = 947 depth = 23

X = 948 depth = 23

X = 949 depth = 23

X = 950 depth = 23

X = 951 depth = 23

X = 952 depth = 23

X = 953 depth = 23

X = 954 depth = 23

X = 955 depth = 23

X = 956 depth = 23

X = 957 depth = 23

X = 958 depth = 23

X = 959 depth = 23

X = 960 depth = 23

X = 961 depth = 22

X = 962 depth = 22

X = 963 depth = 22

X = 964 depth = 22

X = 965 depth = 22

X = 966 depth = 22

X = 967 depth = 22

X = 968 depth = 22

X = 969 depth = 22

X = 970 depth = 22

X = 971 depth = 22

X = 972 depth = 22

X = 973 depth = 22

X = 974 depth = 22

X = 975 depth = 22

X = 976 depth = 22

X = 977 depth = 22

X = 978 depth = 22

X = 979 depth = 22

X = 980 depth = 22

X = 981 depth = 22

X = 982 depth = 22

X = 983 depth = 22

X = 984 depth = 22

X = 985 depth = 22

X = 986 depth = 22

X = 987 depth = 22

X = 988 depth = 22

X = 989 depth = 22

X = 990 depth = 22

X = 991 depth = 22

X = 992 depth = 22

X = 993 depth = 22

X = 994 depth = 22

X = 995 depth = 22

X = 996 depth = 22

X = 997 depth = 22

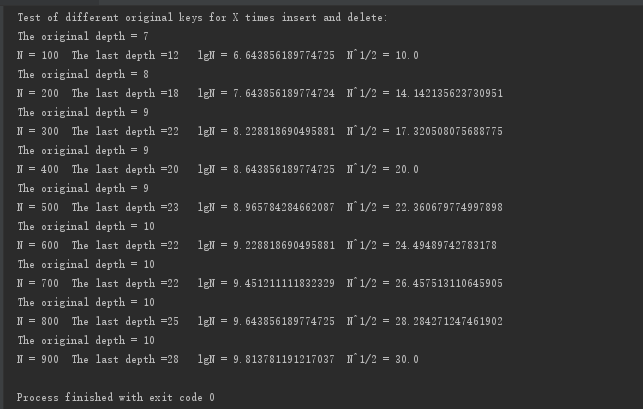
X = 998 depth = 22

X = 999 depth = 22

The last depth =22 lgN = 8.965784284662087 N^1/2 = 22.360679774997898

**As we can see, the original depth is 9 which is nearly equal lgN(N = 500). But as the X increase,the depth is 22 which close to N^1/2.**

**2.Then, I did another thing that I set different N to run this program(M=2N, same X), and I got the result:**



=======================================================================

Test of different original keys for X times insert and delete:

The original depth = 7

N = 100 The last depth =12 lgN = 6.643856189774725 N^1/2 = 10.0

The original depth = 8

N = 200 The last depth =18 lgN = 7.643856189774724 N^1/2 = 14.142135623730951

The original depth = 9

N = 300 The last depth =22 lgN = 8.228818690495881 N^1/2 = 17.320508075688775

The original depth = 9

N = 400 The last depth =20 lgN = 8.643856189774725 N^1/2 = 20.0

The original depth = 9

N = 500 The last depth =23 lgN = 8.965784284662087 N^1/2 = 22.360679774997898

The original depth = 10

N = 600 The last depth =22 lgN = 9.228818690495881 N^1/2 = 24.49489742783178

The original depth = 10

N = 700 The last depth =22 lgN = 9.451211111832329 N^1/2 = 26.457513110645905

The original depth = 10

N = 800 The last depth =25 lgN = 9.643856189774725 N^1/2 = 28.284271247461902

The original depth = 10

N = 900 The last depth =28 lgN = 9.813781191217037 N^1/2 = 30.0

**So, we can find whatever the N is, after X insertion and deletion, the depth will close to 1/2^N.**