

۱. $1, 5, 12, 22$ $2a = 3$ $a = 1, 5$ $c = 0 \rightarrow$ ازجملہ معلوم

$$an^2 + bn + c = 1n^2 + 5n$$

$$\frac{3}{4} + b = 1 \rightarrow b = \frac{1}{4}$$

$$a_{10} = (1 \times 10^2) - (\frac{1}{4} \times 10) = 97.5$$

۲. $1, 1, 3, 6, 10, 15, 21, 28, 36, 45, 55, 66, 78, 91, 105, 120, 136, 153, 171, 190, 210, 231, 252, 273, 295, 318, 342, 367, 393, 420, 448, 477, 507, 538, 569, 601, 634, 668, 703, 739, 776, 814, 853, 893, 934, 976, 1019, 1063, 1109, 1156, 1205, 1255, 1306, 1358, 1411, 1465, 1520, 1576, 1633, 1691, 1750, 1810, 1871, 1933, 1996, 2060, 2125, 2191, 2258, 2326, 2395, 2465, 2536, 2608, 2681, 2755, 2830, 2906, 2983, 3061, 3140, 3220, 3301, 3383, 3466, 3550, 3635, 3721, 3808, 3896, 3985, 4075, 4166, 4258, 4351, 4445, 4540, 4636, 4733, 4831, 4930, 5030, 5131, 5233, 5336, 5440, 5545, 5651, 5758, 5866, 5975, 6085, 6196, 6308, 6421, 6535, 6650, 6766, 6883, 6991, 7100, 7210, 7321, 7433, 7546, 7660, 7775, 7891, 8008, 8126, 8245, 8365, 8486, 8608, 8731, 8855, 8980, 9106, 9233, 9361, 9490, 9620, 9751, 9883, 10016, 10150, 10285, 10421, 10558, 10696, 10835, 10975, 11116, 11258, 11401, 11545, 11690, 11836, 11983, 12131, 12280, 12430, 12581, 12733, 12886, 13040, 13195, 13351, 13508, 13666, 13825, 13985, 14146, 14308, 14471, 14635, 14800, 14966, 15133, 15301, 15470, 15640, 15811, 15983, 16156, 16330, 16505, 16681, 16858, 17036, 17215, 17395, 17576, 17758, 17941, 18125, 18310, 18496, 18683, 18871, 19060, 19250, 19441, 19633, 19826, 20020, 20215, 20411, 20608, 20806, 21005, 21205, 21406, 21608, 21811, 22015, 22220, 22426, 22633, 22841, 23050, 23260, 23471, 23683, 23896, 24110, 24325, 24541, 24758, 24976, 25195, 25415, 25636, 25858, 26081, 26305, 26530, 26756, 26983, 27211, 27440, 27670, 27901, 28133, 28366, 28600, 28835, 29071, 29308, 29546, 29785, 30025, 30266, 30508, 30751, 30995, 31240, 31486, 31733, 31981, 32230, 32480, 32731, 32983, 33236, 33490, 33745, 34001, 34258, 34516, 34775, 35035, 35296, 35558, 35821, 36085, 36350, 36616, 36883, 37151, 37420, 37690, 37961, 38233, 38506, 38780, 39055, 39331, 39608, 39886, 40165, 40445, 40726, 41008, 41291, 41575, 41860, 42146, 42433, 42721, 43010, 43300, 43591, 43883, 44176, 44470, 44765, 45061, 45358, 45656, 45955, 46255, 46556, 46858, 47161, 47465, 47770, 48076, 48383, 48691, 49000, 49310, 49621, 49933, 50246, 50560, 50875, 51191, 51508, 51826, 52145, 52465, 52786, 53108, 53431, 53755, 54080, 54406, 54733, 55061, 55390, 55720, 56051, 56383, 56716, 57050, 57385, 57721, 58058, 58396, 58735, 59075, 59416, 59758, 60101, 60445, 60790, 61136, 61483, 61831, 62180, 62530, 62881, 63233, 63586, 63940, 64295, 64651, 65008, 65366, 65725, 66085, 66446, 66808, 67171, 67535, 67900, 68266, 68633, 69001, 69370, 69740, 70111, 70483, 70856, 71230, 71605, 71981, 72358, 72736, 73115, 73495, 73876, 74258, 74641, 75025, 75410, 75796, 76183, 76571, 76960, 77350, 77741, 78133, 78526, 78920, 79315, 79711, 80108, 80506, 80905, 81305, 81706, 82108, 82511, 82915, 83320, 83726, 84133, 84541, 84950, 85360, 85771, 86183, 86596, 87010, 87425, 87841, 88258, 88676, 89095, 89515, 89936, 90358, 90781, 91205, 91630, 92056, 92483, 92911, 93340, 93770, 94201, 94633, 95066, 95500, 95935, 96371, 96808, 97246, 97685, 98125, 98566, 99008, 99451, 99895, 100340, 100786, 101233, 101681, 102130, 102580, 103031, 103483, 103936, 104390, 104845, 105301, 105758, 106216, 106675, 107135, 107596, 108058, 108521, 108985, 109450, 109916, 110383, 110851, 111320, 111790, 112261, 112733, 113206, 113680, 114155, 114631, 115108, 115586, 116065, 116545, 117026, 117508, 117991, 118475, 118960, 119446, 119933, 120421, 120910, 121400, 121891, 122383, 122876, 123370, 123865, 124361, 124858, 125356, 125855, 126355, 126856, 127358, 127861, 128365, 128870, 129376, 129883, 130391, 130900, 131410, 131921, 132433, 132945, 133458, 133971, 134485, 135000, 135516, 136033, 136551, 137070, 137590, 138111, 138633, 139155, 139678, 140201, 140725, 141250, 141776, 142303, 142831, 143360, 143890, 144421, 144953, 145485, 146018, 146551, 147085, 147620, 148156, 148693, 149231, 149770, 150310, 150851, 151393, 151936, 152480, 153025, 153571, 154118, 154665, 155213, 155761, 156310, 156860, 157411, 157963, 158516, 159070, 159625, 160181, 160738, 161295, 161853, 162412, 162972, 163533, 164095, 164658, 165221, 165785, 166350, 166916, 167483, 168051, 168620, 169190, 169761, 170333, 170906, 171480, 172055, 172631, 173208, 173786, 174365, 174945, 175526, 176108, 176691, 177275, 177860, 178446, 179033, 179621, 180210, 180800, 181391, 181983, 182576, 183170, 183765, 184361, 184958, 185556, 186155, 186755, 187356, 187958, 188561, 189165, 189770, 190376, 190983, 191591, 192200, 192810, 193421, 194033, 194645, 195258, 195871, 196485, 197100, 197716, 198333, 198951, 199570, 200190, 200811, 201433, 202056, 202680, 203305, 203931, 204558, 205185, 205813, 206441, 207070, 207700, 208331, 208963, 209595, 210228, 210861, 211495, 212130, 212765, 213401, 214038, 214675, 215313, 215951, 216590, 217230, 217871, 218513, 219155, 219800, 220445, 221091, 221738, 222385, 223033, 223681, 224330, 224980, 225631, 226283, 226935, 227588, 228241, 228895, 229550, 230205, 230861, 231518, 232175, 232833, 233491, 234150, 234810, 235471, 236133, 236795, 237458, 238121, 238785, 239450, 240115, 240781, 241448, 242115, 242783, 243451, 244120, 244790, 245461, 246133, 246805, 247478, 248151, 248825, 249500, 250175, 250851, 251528, 252205, 252883, 253561, 254240, 254920, 255600, 256281, 256963, 257645, 258328, 259011, 259695, 260380, 261065, 261751, 262438, 263125, 263813, 264501, 265190, 265880, 266571, 267263, 267955, 268648, 269341, 270035, 270730, 271425, 272121, 272818, 273515, 274213, 274911, 275610, 276310, 277011, 277713, 278415, 279118, 279821, 280525, 281230, 281935, 282641, 283348, 284055, 284763, 285471, 286180, 286890, 287601, 288313, 289025, 289738, 290451, 291165, 291880, 292595, 293311, 294028, 294745, 295463, 296181, 296900, 297620, 298341, 299063, 299785, 300508, 301231, 301955, 302680, 303405, 304131, 304858, 305585, 306313, 307041, 307770, 308500, 309231, 309963, 310695, 311428, 312161, 312895, 313630, 314365, 315101, 315838, 316575, 317313, 318051, 318790, 319530, 320271, 321013, 321755, 322500, 323245, 323991, 324738, 325485, 326233, 326981, 327730, 328480, 329231, 330083, 330835, 331588, 332341, 333095, 333850, 334605, 335361, 336118, 336875, 337633, 338391, 339150, 339910, 340671, 341433, 342195, 342958, 343721, 344485, 345250, 346015, 346781, 347548, 348315, 349083, 349851, 350620, 351390, 352161, 352933, 353705, 354478, 355251, 356025, 356800, 357575, 358351, 359128, 359905, 360683, 361461, 362240, 363020, 363801, 364583, 365365, 366148, 366931, 367715, 368500, 369285, 370071, 370858, 371645, 372433, 373221, 374010, 374800, 375591, 376383, 377175, 377968, 378761, 379555, 380350, 381145, 381941, 382738, 383535, 384333, 385131, 385930, 386730, 387531, 388333, 389135, 389938, 390741, 391545, 392350, 393155, 393961, 394768, 395575, 396383, 397191, 398000, 398810, 399621, 400433, 401245, 402058, 402871, 403685, 404500, 405315, 406131, 406948, 407765, 408583, 409401, 410220, 411040, 411861, 412683, 413505, 414328, 415151, 415975, 416800, 417625, 418451, 419278, 420105, 420933, 421761, 422590, 423420, 424251, 425083, 425915, 426748, 427581, 428415, 429250, 430085, 430921, 431758, 432595, 433433, 434271, 435110, 435950, 436791, 437633, 438475, 439318, 440161, 441005, 441850, 442695, 443541, 444388, 445235, 446083, 446931, 447780, 448630, 449481, 450333, 451185, 452038, 452891, 453745, 454600, 455455, 456311, 457168, 458025, 458883, 459741, 460600, 461460, 462321, 463183, 464045, 464908, 465771, 466635, 467500, 468365, 469231, 470098, 470965, 471833, 472701, 473570, 474440, 475311, 476183, 477055, 477928, 478801, 479675, 480550, 481425, 482301, 483178, 484055, 484933, 485811, 486690, 487570, 488451, 489333, 490215, 491100, 491985, 492871, 493758, 494645, 495533, 496421, 497310, 498200, 499091, 499983, 500875, 501768, 502661, 503555, 504450, 505345, 506241, 507138, 508035, 508933, 509831, 510730, 511630, 512531, 513433, 514335, 515238, 516141, 517045, 517950, 518855, 519761, 520668, 521575, 522483, 523391, 524300, 525210, 526121, 527033, 527945, 528858, 529771, 530685, 531600, 532515, 533431, 534348, 535265, 536183, 537101, 538020, 538940, 539861, 540783, 541705, 542628, 543551, 544475, 545400, 546325, 547251, 548178, 549105, 550033, 550961, 551890, 552820, 553751, 554683, 555615, 556548, 557481, 558415, 559350, 560285, 561221, 562158, 563095, 564033, 564971, 565910, 566850, 567791, 568733, 569675, 570618, 571561, 572505, 573450, 574395, 575341, 576288, 577235, 578183, 579131, 580080, 581030, 581981, 582933, 583885, 584838, 585791, 586745, 587700, 588655, 589611, 590568, 591525, 592483, 593441, 594400, 595360, 596321, 597283, 598245, 599208, 600171, 601135, 602100, 603065, 604031, 605000, 605971, 606943, 607915, 608888, 609861, 610835, 611810, 612785, 613761, 614738, 615715, 616693, 617671, 618650, 619630, 620611, 621593, 622575, 623558, 624541, 625525, 626510, 627495, 628481, 629468, 630455, 631443, 632431, 633420, 634410, 635401, 636393, 637385, 638378, 639371, 640365, 641360, 642355, 643351, 644348, 645345, 646343, 647341, 648340, 649340, 650341, 651343, 652345, 653348, 654351, 655355, 656360, 657365, 658371, 659378, 660385, 661393, 662401, 663410, 664420, 665431, 666443, 667455, 668468, 669481, 670495, 671510, 672525, 673541, 674558, 675575, 676593, 677611, 678630, 679650, 680671, 681693, 682715, 683738, 684761, 685785, 686810, 687835, 688861, 689888, 690915, 691943, 692971, 693998, 695025, 696053, 697081, 698110, 699140, 700171, 701203, 702235, 703268, 704301, 705335, 706370, 707405, 708441, 709478, 710515, 711553, 712591, 713630, 714670, 715711, 716753, 717795, 718838, 719881, 720925, 721970, 723015, 724061, 725108, 726155, 727203, 728251, 729300, 730350, 731401, 732453, 733505, 734558, 735611, 736665, 737720, 738775, 739831, 740888, 741945, 743003, 744061, 745120, 746180, 747241, 748303, 749365, 750428, 751491, 752555, 753620, 754685, 755751, 756818, 757885, 758953, 760021, 761090, 762160, 763231, 764303, 765375, 766448, 767521, 768595, 769670, 770745, 771821, 772898, 773975, 775053, 776131, 777210, 778290, 779371, 780453, 781535, 782618, 783701, 784785, 785870, 786955, 788041, 789128, 790215, 791303, 792391, 793480, 794570, 795661, 796753, 797845, 798938, 800031, 801125, 802220, 803315, 804411, 805508, 806605, 807703, 808801, 809900, 811000, 812101, 813203, 814305, 815408, 816511, 817615, 818720, 819825, 820931, 822038, 823145, 824253, 825361, 826470, 827580, 828691, 829803, 830915, 832028, 833141, 834255, 835370, 836485, 837601, 838718, 839835, 840953, 842071, 843190, 844310, 845431, 846553, 847675, 848798, 849921, 851045, 852170, 853295, 854421, 855548, 856675, 857803, 858931, 860060, 861190, 862321, 863453, 864585, 865718, 866851, 867985, 869120, 870255, 871391, 872528, 873665, 874803, 875941, 877080, 878220, 879361, 880503, 881645, 882788, 883931, 885075, 886220, 887365, 888511, 889658, 890805, 891953, 893101, 894250, 895400, 896551, 897703, 898855, 900008, 901161, 902315, 903470, 904625, 905781, 906938, 908095, 909253, 910411, 911570, 912730, 913891, 915053, 916215, 917378, 918541, 919705, 920870, 922035, 923201, 924368, 925535, 926703, 927871, 929040, 930210, 931381, 932553, 933725, 934898, 936071, 937245, 938420, 939595, 940771, 941948, 943125, 944303, 945481, 946660, 947840, 949021, 950203, 951385, 952568, 953751, 954935, 956120, 957305, 958491, 959678, 960865, 962053, 963241, 964430, 965620, 966811, 968003, 969195, 970388, 971581, 972775, 973970, 975165, 976361, 977558, 978755, 979953, 981151, 982350, 983550, 984751, 985953, 987155, 988358, 989561, 990765, 991970, 993175, 994381, 995588, 996795, 998003, 999211, 1000420, 1001630, 1002841, 1004053, 1005265, 1006478, 1007691, 1008905, 1010120, 1011335, 1012551, 1013768, 1014985, 1016203, 1017421, 1018640, 1019860, 1021081, 1022303, 1023525, 1024748, 1025971, 1027195, 1028420, 1029645, 1030871, 1032098, 1033325, 1034553, 1035781, 1037010, 1038240, 1039471, 1040703, 1041935, 1043168, 1044401, 1045635, 1046870, 1048105, 1049341, 1050578, 1051815, 1053053, 1054291, 1055530, 1056770, 1058011, 1059253, 1060495, 1061738, 1062981, 1064225, 1065470, 1066715, 1067961, 1069208, 1070455, 1071703, 1072951, 1074200, 1075450, 1$

$$\begin{aligned} a_r &= \sqrt{1} \\ a_r &= 1 \Delta \rightarrow \sqrt{1} + r\Delta = 1 \Delta \rightarrow r\Delta = 1 \Delta \rightarrow \Delta = 1 \end{aligned} \quad \left. \begin{aligned} a_1 + d = \sqrt{1} &\rightarrow \boxed{a_1 = 1} \\ r + (n-1)d = a_n \end{aligned} \right\}$$

$$a_1 = b_1 = 1, a_r = 11 = b_r \rightsquigarrow b_n = 1, 11, 19, 27$$

$$t_n = \frac{1}{1}, \frac{4}{4}, \frac{9}{9}, \frac{16}{16}, \dots \quad \frac{r_n - r}{r_n + r} = a_n \quad \frac{11}{11} = \frac{22}{22}$$

1
جواب 4

$$+4 \quad +3 \quad +2 \quad +1 \quad 0 \quad -1 \quad -2$$

$$t_n = 4, 9, 9, 4, 0, \dots \quad r_a = -3 \quad a = -\frac{3}{r}$$

$$t_n = A n^r + B n \rightarrow \frac{1}{r} \quad -\frac{3}{r} \leftarrow$$

$$3A + \Delta B = 3\sqrt{1} \Delta$$

$$3x - \frac{3}{r} = -\frac{9}{r} + (a \times \sqrt{1} \Delta) = (p \mu)$$

$$\begin{aligned} -\frac{3}{r} n^r + b n &= a n \\ c = 0 \rightarrow \text{مقدار} & \\ n=1 \rightarrow -\frac{3}{r} + b &= 4 \\ b &= \frac{4 + \frac{3}{r}}{\sqrt{1} \Delta} \end{aligned}$$

$$a_n = -\frac{3}{r} n^r + \sqrt{1} \Delta n$$

$$t_n = \frac{-4}{0}, \frac{-1}{1}, \frac{0}{2}, \dots \quad r_a = 1 \quad \boxed{a = 1}$$

$$\begin{aligned} a_r &= 31 \\ a_f &= 11 \quad a_1 + d = 31 \rightarrow \boxed{a_1 = 24} \end{aligned}$$

$$a_r + r\Delta = 11 \rightarrow r\Delta = 10 \quad \boxed{\Delta = 5}$$

$$a_n = 24 + (n-1) \Delta$$

$$24 + \Delta n - \Delta = \Delta n + 21 = a_n$$

$$\boxed{a_9 = 94}$$

$$\begin{aligned} a = 1 \rightarrow 1 + b - 4 &= -4 \\ -\Delta & \\ \boxed{b = -1} & \end{aligned}$$

$$t_n = n^r - n - 4$$

$$9(3) = 27 \rightarrow n = 9$$

← جواب 94