

$$(2) \quad H^N \rightarrow \mathbb{Z}^N \rightarrow \mathbb{Z} \rightarrow 0 \quad \sim \quad \alpha \cdot -E / b \cdot F$$

Q. 1. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839,

۲. الله متعالي واليه
 $x^2 + 2x + 5 = 0$

$$(x - \sqrt[n]{n})^n = x^n - \underbrace{n \sqrt[n]{n}}_{-c_a} x + \underbrace{\dots}_{-c_b}$$

$$\left[\frac{b}{a} \right]_s = \begin{bmatrix} x^m & y^n \\ -y^m & x^n \end{bmatrix} \cdot \begin{bmatrix} z \\ -z \end{bmatrix} = \begin{bmatrix} z \\ -z \end{bmatrix}$$

$$\lim_{x \rightarrow \infty} \frac{[-x] + a}{x} = \frac{[-x] + [-\frac{\sqrt{n}}{2}] - 1}{\frac{n}{2}} = \text{---}$$

$$\frac{1}{\sqrt{2}} \left(\frac{\sqrt{2}}{2} \right) + a + a s o \rightarrow \frac{1}{\sqrt{2}} + a + a s o \rightarrow \frac{1}{\sqrt{2}} - a - \frac{1}{4}$$

$$[a] = \left[\frac{-1}{9} \right] = -1$$

$$\lim_{\nu \rightarrow \infty} 14\pi - \left[-\frac{\pi}{2\nu}\right] \rightarrow -14(-9) \cdot 1 \approx 126 \neq 0$$

$$x \rightarrow \left(-\frac{1}{p}\right)^T p^T x + \left[\frac{w}{x^p}\right]$$

$$2) -\frac{1}{r} - \frac{1}{2} < -1 \rightarrow \frac{1}{2r} > r \rightarrow \frac{-r}{2r} < -1 \rightarrow \left[\frac{-r}{2r} \right] = -9$$

$$\frac{r}{2r} > 1r \rightarrow \left[\frac{r}{2r} \right] = 1r$$

$$-1P, 1P, 0, 0, 0, 0$$

$$-\infty \rightarrow \frac{1}{0^+} \rightarrow +\infty \quad \checkmark$$

$$\lim_{x \rightarrow \mu^+} \frac{x^N - c}{x^N - [x^N]}$$
$$\hookrightarrow [2^m] \perp [N^m], [1^m] \perp 1$$

$$\frac{(n-1)(n+1)}{(2n)(n+1)} \cdot \frac{2+n}{2n+1} \cdot \frac{1}{n} \cdot \frac{1}{n} = \frac{1}{n^2}$$

$$\lim_{x \rightarrow -\infty} \frac{x^{\mu} \ln x + 14}{x^{\mu} + 4^{\mu} x} = \frac{HOP}{NOD} = \frac{M_n + 10}{5(M_n + 10)(\mu^{\mu} \sqrt{\ln x})} = \frac{1}{\mu^{\mu} \sqrt{\ln x}}$$

$$s - \frac{1 \times 14}{4} = s - 14 \quad \checkmark$$

$$\lim_{\lambda \rightarrow 0} \frac{\sqrt{p_{+}^2 + m^2} - \sqrt{p_{-}^2 + m^2}}{\epsilon_m} \times \frac{\sqrt{1 + \cos \theta}}{\sqrt{1 - \cos \theta}} \times \frac{\sqrt{p_{+}^2 + m^2} + \sqrt{p_{-}^2 + m^2}}{\sqrt{p_{+}^2 + m^2} - \sqrt{p_{-}^2 + m^2}}$$

$$\frac{P_1 P_m - P + m}{-E \cos \alpha} \times \frac{\sqrt{1 + \cos \alpha}}{\sqrt{P_1 P_m + P} - m} = P \times \frac{\sqrt{P}}{P \sqrt{P}} = P - P$$

$$\lim_{x \rightarrow 0} \frac{k + \cos(\sqrt{x})}{kx^p} \text{ Hop } -\sqrt{x} \sin \sqrt{x} \sim \sqrt{x}$$

$$\frac{\sqrt{a} \times \sqrt{a} \text{ m}}{15 \text{ m}} = \frac{a}{15} \text{ m} = a, 4 \text{ K} - a, 4 \text{ K}$$

$$\frac{a}{k} \rightarrow \frac{-4k}{k} = -4$$

$$\lim_{z \rightarrow \infty} \frac{\sqrt{z-a} + \sqrt{z-b} - \sqrt{PQ}}{\sqrt{2P-9aP}} \cdot \frac{0}{0} \quad .9$$

$$\sqrt{(z+a) \times (z-b)}$$

$$H.O.P \left(\frac{1}{\sqrt{z-a}} + \frac{P}{P\sqrt{z-b}} \right) \times \sqrt{2P-9aP} \sim \left(\frac{1}{\sqrt{z-a}} + \frac{P}{P\sqrt{z-b}} \right) (\sqrt{z-a}\sqrt{z-b})$$

$$\frac{1}{\sqrt{z-a}} (\sqrt{z-a}\sqrt{z-b}) + \frac{P}{P\sqrt{z-b}} (\sqrt{z-a}\sqrt{z-b}) \sim \frac{1}{\sqrt{z-a}} \times \sqrt{4a} \times \frac{P}{P\sqrt{4a}} \quad \checkmark$$

$$\lim_{z \rightarrow -1} \frac{1-K[z]}{z^2-1} \quad s \rightarrow \infty \quad \begin{matrix} -1 \\ -1^+ \end{matrix} \quad \frac{1+K}{z^2-1} \quad s \rightarrow \infty \quad \frac{1+K}{0^-} \quad s \rightarrow \infty \quad K > -1 \quad .10$$

$$\frac{1+PK}{z^2-1} \quad s \rightarrow \infty \quad \frac{1+PK}{0^+} \quad s \rightarrow \infty \quad 1+PK < 0 \quad PK < -1 - K < -\frac{1}{P} \quad \checkmark$$

$$-1 < K < -\frac{1}{P} \quad \rightarrow \quad -\pi < \angle K < -\frac{\pi}{P}$$

