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INTELLIGENCE (Reasoning)

MATHEMATICAL SERIES

In this chapter, a series of numbers are given. The series follow a certain pattern from begin to end. The candidates are required to recognize the pattern in the given series such as add, subtract, multiply or division.

Sometimes it may find wrong terms in the series which students to identify. Some category wise examples are given below for understanding the students, which will help the candidates in answering the questions.

Possible ways of series

1. **Even numbers can be either in ascending or descending order such as :**

6, 8, 10, 12..... Ascending order.

22, 20, 18, 16 Descending order.

2. **Even numbers can be alternatively written and skipped one after another either in ascending or descending orders such as:**

6, 10, 14, 18 Ascending order.

22, 18, 14, 10..... Descending order.

3. **Odd numbers can be either in ascending or descending order such as :**

5, 7, 9, 11..... Ascending order.

21, 19, 17, 15 Descending order.

4. **Odd numbers can be alternatively written and skipped one after another either in ascending or descending orders such as:**

5, 9, 13, 17..... Ascending order.

21, 17, 13, 9..... Descending order.

5. **Prime numbers can be either in ascending or descending order such as :**

5, 7, 11, 13 Ascending order.

23, 19, 17, 13 Descending order.

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6. **Prime numbers can be either in ascending or descending order such as :**

5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97, 101, 103, 107, 109, 113, 127, 131, 137, 139, 149, 151, 157, 163, 167, 173, 179, 181, 187, 191, 193, 197, 199, 211, 223, 227, 229, 233, 239, 241, 251, 257, 263, 269, 271, 277, 281, 283, 293, 307, 311, 313, 317, 331, 337, 347, 349, 353, 359, 367, 373, 379, 383, 389, 397, 401, 409, 419, 421, 431, 433, 439, 443, 449, 457, 461, 463, 467, 479, 487, 491, 499, 503, 509, 521, 523, 527, 539, 541, 547, 557, 563, 569, 577, 587, 593, 601, 607, 611, 613, 617, 619, 631, 641, 643, 647, 653, 659, 661, 673, 677, 683, 689, 691, 697, 701, 709, 713, 719, 727, 733, 739, 743, 751, 757, 761, 769, 773, 787, 791, 797, 809, 811, 821, 823, 827, 829, 833, 839, 853, 857, 859, 863, 877, 881, 883, 887, 893, 899, 907, 911, 919, 929, 937, 941, 947, 953, 967, 971, 977, 983, 989, 991, 997, 1009, 1013, 1019, 1021, 1031, 1033, 1039, 1043, 1049, 1051, 1057, 1063, 1069, 1073, 1079, 1087, 1091, 1093, 1097, 1103, 1109, 1117, 1121, 1123, 1127, 1129, 1133, 1139, 1147, 1151, 1153, 1157, 1163, 1169, 1171, 1177, 1181, 1183, 1187, 1193, 1199, 1201, 1207, 1211, 1213, 1217, 1223, 1229, 1231, 1237, 1241, 1243, 1247, 1249, 1253, 1259, 1261, 1267, 1271, 1273, 1277, 1279, 1283, 1289, 1291, 1297, 1301, 1303, 1307, 1309, 1313, 1319, 1321, 1327, 1329, 1333, 1337, 1339, 1343, 1349, 1351, 1357, 1361, 1363, 1367, 1369, 1373, 1379, 1381, 1387, 1391, 1393, 1397, 1403, 1409, 1411, 1417, 1421, 1423, 1427, 1429, 1433, 1439, 1441, 1443, 1447, 1449, 1453, 1459, 1463, 1469, 1471, 1477, 1481, 1483, 1487, 1493, 1499, 1501, 1507, 1511, 1513, 1517, 1519, 1523, 1529, 1531, 1537, 1541, 1543, 1547, 1549, 1553, 1559, 1561, 1567, 1571, 1573, 1577, 1579, 1583, 1589, 1591, 1597, 1601, 1603, 1607, 1609, 1613, 1619, 1621, 1627, 1629, 1633, 1637, 1639, 1643, 1649, 1651, 1657, 1661, 1663, 1667, 1669, 1673, 1679, 1681, 1687, 1691, 1693, 1697, 1703, 1709, 1711, 1717, 1721, 1723, 1727, 1729, 1733, 1739, 1741, 1743, 1747, 1749, 1753, 1759, 1761, 1767, 1771, 1773, 1777, 1779, 1783, 1789, 1791, 1793, 1797, 1801, 1803, 1807, 1809, 1813, 1819, 1821, 1823, 1827, 1829, 1833, 1837, 1839, 1843, 1849, 1851, 1853, 1857, 1861, 1863, 1867, 1869, 1873, 1879, 1881, 1883, 1887, 1893, 1899, 1901, 1903, 1907, 1909, 1913, 1919, 1921, 1923, 1927, 1929, 1933, 1937, 1939, 1943, 1949, 1951, 1953, 1957, 1961, 1963, 1967, 1969, 1973, 1979, 1981, 1983, 1987, 1993, 1999, 2003, 2009, 2011, 2013, 2017, 2019, 2023, 2029, 2031, 2033, 2037, 2039, 2043, 2049, 2051, 2053, 2057, 2061, 2063, 2067, 2069, 2073, 2079, 2081, 2083, 2087, 2093, 2099, 2101, 2103, 2107, 2109, 2113, 2119, 2121, 2123, 2127, 2129, 2133, 2137, 2139, 2143, 2149, 2151, 2153, 2157, 2161, 2163, 2167, 2169, 2173, 2179, 2181, 2183, 2187, 2193, 2199, 2201, 2203, 2207, 2209, 2213, 2219, 2221, 2223, 2227, 2229, 2233, 2237, 2239, 2243, 2249, 2251, 2253, 2257, 2261, 2263, 2267, 2269, 2273, 2279, 2281, 2283, 2287, 2293, 2299, 2301, 2303, 2307, 2309, 2313, 2319, 2321, 2323, 2327, 2329, 2333, 2337, 2339, 2343, 2349, 2351, 2353, 2357, 2361, 2363, 2367, 2369, 2373, 2379, 2381, 2383, 2387, 2393, 2399, 2401, 2403, 2407, 2409, 2413, 2419, 2421, 2423, 2427, 2429, 2433, 2437, 2439, 2443, 2449, 2451, 2453, 2457, 2461, 2463, 2467, 2469, 2473, 2479, 2481, 2483, 2487, 2493, 2499, 2501, 2503, 2507, 2509, 2513, 2519, 2521, 2523, 2527, 2529, 2533, 2537, 2539, 2543, 2549, 2551, 2553, 2557, 2561, 2563, 2567, 2569, 2573, 2579, 2581, 2583, 2587, 2593, 2599, 2601, 2603, 2607, 2609, 2613, 2619, 2621, 2623, 2627, 2629, 2633, 2637, 2639, 2643, 2649, 2651, 2653, 2657, 2661, 2663, 2667, 2669, 2673, 2679, 2681, 2683, 2687, 2693, 2699, 2701, 2703, 2707, 2709, 2713, 2719, 2721, 2723, 2727, 2729, 2733, 2737, 2739, 2743, 2749, 2751, 2753, 2757, 2761, 2763, 2767, 2769, 2773, 2779, 2781, 2783, 2787, 2793, 2799, 2801, 2803, 2807, 2809, 2813, 2819, 2821, 2823, 2827, 2829, 2833, 2837, 2839, 2843, 2849, 2851, 2853, 2857, 2861, 2863, 2867, 2869, 2873, 2879, 2881, 2883, 2887, 2893, 2899, 2901, 2903, 2907, 2909, 2913, 2919, 2921, 2923, 2927, 2929, 2933, 2937, 2939, 2943, 2949, 2951, 2953, 2957, 2961, 2963, 2967, 2969, 2973, 2979, 2981, 2983, 2987, 2993, 2999, 3001, 3003, 3007, 3009, 3013, 3019, 3021, 3023, 3027, 3029, 3033, 3037, 3039, 3043, 3049, 3051, 3053, 3057, 3061, 3063, 3067, 3069, 3073, 3079, 3081, 3083, 3087, 3093, 3099, 3101, 3103, 3107, 3109, 3113, 3119, 3121, 3123, 3127, 3129, 3133, 3137, 3139, 3143, 3149, 3151, 3153, 3157, 3161, 3163, 3167, 3169, 3173, 3179, 3181, 3183, 3187, 3193, 3199, 3201, 3203, 3207, 3209, 3213, 3219, 3221, 3223, 3227, 3229, 3233, 3237, 3239, 3243, 3249, 3251, 3253, 3257, 3261, 3263, 3267, 3269, 3273, 3279, 3281, 3283, 3287, 3293, 3299, 3301, 3303, 3307, 3309, 3313, 3319, 3321, 3323, 3327, 3329, 3333, 3337, 3339, 3343, 3349, 3351, 3353, 3357, 3361, 3363, 3367, 3369, 3373, 3379, 3381, 3383, 3387, 3393, 3399, 3401, 3403, 3407, 3409, 3413, 3419, 3421, 3423, 3427, 3429, 3433, 3437, 3439, 3443, 3449, 3451, 3453, 3457, 3461, 3463, 3467, 3469, 3473, 3479, 3481, 3483, 3487, 3493, 3499, 3501, 3503, 3507, 3509, 3513, 3519, 3521, 3523, 3527, 3529, 3533, 3537, 3539, 3543, 3549, 3551, 3553, 3557, 3561, 3563, 3567, 3569, 3573, 3579, 3581, 3583, 3587, 3593, 3599, 3601, 3603, 3607, 3609, 3613, 3619, 3621, 3623, 3627, 3629, 3633, 3637, 3639, 3643, 3649, 3651, 3653, 3657, 3661, 3663, 3667, 3669, 3673, 3679, 3681, 3683, 3687, 3693, 3699, 3701, 3703, 3707, 3709, 3713, 3719, 3721, 3723, 3727, 3729, 3733, 3737, 3739, 3743, 3749, 3751, 3753, 3757, 3761, 3763, 3767, 3769, 3773, 3779, 3781, 3783, 3787, 3793, 3799, 3801, 3803, 3807, 3809, 3813, 3819, 3821, 3823, 3827, 3829, 3833, 3837, 3839, 3843, 3849, 3851, 3853, 3857, 3861, 3863, 3867, 3869, 3873, 3879, 3881, 3883, 3887, 3893, 3899, 3901, 3903, 3907, 3909, 3913, 3919, 3921, 3923, 3927, 3929, 3933, 3937, 3939, 3943, 3949, 3951, 3953, 3957, 3961, 3963, 3967, 3969, 3973, 3979, 3981, 3983, 3987, 3993, 3999, 4001, 4003, 4007, 4009, 4013, 4019, 4021, 4023, 4027, 4029, 4033, 4037, 4039, 4043, 4049, 4051, 4053, 4057, 4061, 4063, 4067, 4069, 4073, 4079, 4081, 4083, 4087, 4093, 4099, 4101, 4103, 4107, 4109, 4113, 4119, 4121, 4123, 4127, 4129, 4133, 4137, 4139, 4143, 4149, 4151, 4153, 4157, 4161, 4163, 4167, 4169, 4173, 4179, 4181, 4183, 4187, 4193, 4199, 4201, 4203, 4207, 4209, 4213, 4219, 4221, 4223, 4227, 4229, 4233, 4237, 4239, 4243, 4249, 4251, 4253, 4257, 4261, 4263, 4267, 4269, 4273, 4279, 4281, 4283, 4287, 4293, 4299, 4301, 4303, 4307, 4309, 4313, 4319, 4321, 4323, 4327, 4329, 4333, 4337, 4339, 4343, 4349, 4351, 4353, 4357, 4361, 4363, 4367, 4369, 4373, 4379, 4381, 4383, 4387, 4393, 4399, 4401, 4403, 4407, 4409, 4413, 4419, 4421, 4423, 4427, 4429, 4433, 4437, 4439, 4443, 4449, 4451, 4453, 4457, 4461, 4463, 4467, 4469, 4473, 4479, 4481, 4483, 4487, 4493, 4499, 4501, 4503, 4507, 4509, 4513, 4519, 4521, 4523, 4527, 4529, 4533, 4537, 4539, 4543, 4549, 4551, 4553, 4557, 4561, 4563, 4567, 4569, 4573, 4579, 4581, 4583, 4587, 4593, 4599, 4601, 4603, 4607, 4609, 4613, 4619, 4621, 4623, 4627, 4629, 4633, 4637, 4639, 4643, 4649, 4651, 4653, 4657, 4661, 4663, 4667, 4669, 4673, 4679, 4681, 4683, 4687, 4693, 4699, 4701, 4703, 4707, 4709, 4713, 4719, 4721, 4723, 4727, 4729, 4733, 4737, 4739, 4743, 4749, 4751, 4753, 4757, 4761, 4763, 4767, 4769, 4773, 4779, 4781, 4783, 4787, 4793, 4799, 4801, 4803, 4807, 4809, 4813, 4819, 4821, 4823, 4827, 4829, 4833, 4837, 4839, 4843, 4849, 4851, 4853, 4857, 4861, 4863, 4867, 4869, 4873, 4879, 4881, 4883, 4887, 4893, 4899, 4901, 4903, 4907, 4909, 4913, 4919, 4921, 4923, 4927, 4929, 4933, 4937, 4939, 4943, 4949, 4951, 4953, 4957, 4961, 4963, 4967, 4969, 4973, 4979, 4981, 4983, 4987, 4993, 4999, 5001, 5003, 5007, 5009, 5013, 5019, 5021, 5023, 5027, 5029, 5033, 5037, 5039, 5043, 5049, 5051, 5053, 5057, 5061, 5063, 5067, 5069, 5073, 5079, 5081, 5083, 5087, 5093, 5099, 5101, 5103, 5107, 5109, 5113, 5119, 5121, 5123, 5127, 5129, 5133, 5137, 5139, 5143, 5149, 5151, 5153, 5157, 5161, 5163, 5167, 5169, 5173, 5179, 5181, 5183, 5187, 5193, 5199, 5201, 5203, 5207, 5209, 5213, 5219, 5221, 5223, 5227, 5229, 5233, 5237, 5239, 5243, 5249, 5251, 5253, 5257, 5261, 5263, 5267, 5269, 5273, 5279, 5281, 5283, 5287, 5293, 5299, 5301, 5303, 5307, 5309, 5313, 5319, 5321, 5323, 5327, 5329, 5333, 5337, 5339, 5343, 5349, 5351, 5353, 5357, 5361, 5363, 5367, 5369, 5373, 5379, 5381, 5383, 5387, 5393, 5399, 5401, 5403, 5407, 5409, 5413, 5419, 5421, 5423, 5427, 5429, 5433, 5437, 5439, 5443, 5449, 5451, 5453, 5457, 5461, 5463, 5467, 5469, 5473, 5479, 5481, 5483, 5487, 5493, 5499, 5501, 5503, 5507, 5509, 5513, 5519, 5521, 5523, 5527, 5529, 5533, 5537, 5539, 5543, 5549, 5551, 5553, 5557, 5561, 5563, 5567, 5569, 5573, 5579, 5581, 5583, 5587, 5593, 5599, 5601, 5603, 5607, 5609, 5613, 5619, 5621, 5623, 5627, 5629, 5633, 5637, 5639, 5643, 5649, 5651, 5653, 5657, 5661, 5663, 5667, 5669, 5673, 5679, 5681, 5683, 5687, 5693, 5699, 5701, 5703, 5707, 5709, 5713, 5719, 5721, 5723, 5727, 5729, 5733, 5737, 5739, 5743, 5749, 5751, 5753, 5757, 5761, 5763, 5767, 5769, 5773, 5779, 5781, 5783, 5787, 5793, 5799, 5801, 5803, 5807, 5809, 5813, 5819, 5821, 5823, 5827, 5829, 5833, 5837, 5839, 5843, 5849, 5851, 5853, 5857, 5861, 5863, 5867, 5869, 5873, 5879, 5881, 5883, 5887, 5893, 5899, 5901, 5903, 5907, 5909, 5913, 5919, 5921, 5923, 5927, 5929, 5933, 5937, 5939, 5943, 5949, 5951, 5953, 5957, 5961, 5963, 5967, 5969, 5973, 5979, 5981, 5983, 5987, 5993, 5999, 6001, 6003, 6007, 6009, 6013, 6019, 6021, 6023, 6027, 6029, 6033, 6037, 6039, 6043, 6049, 6051, 6053, 6057, 6061, 6063, 6067, 6069, 6073, 6079, 6081, 6083, 6087, 6093, 6099, 6101, 6103, 6107, 6109, 6113, 6119, 6121, 6123, 6127, 6129, 6133, 6137, 6139, 6143, 6149, 6151, 6153, 6157, 6161, 6163, 6167, 6169, 6173, 6179, 6181, 6183, 6187, 6193, 6199, 6201, 6203, 6207, 6209, 6213, 6219, 6221, 6223, 6227, 6229, 6233, 6237, 6239, 6243, 6249, 6251, 6253, 6257, 6261, 6263, 6267, 6269, 6273, 6279, 6281, 6283, 6287, 6293, 6299, 6301, 6303, 6307, 6309, 6313, 6319, 6321, 6323, 6327, 6329, 6333, 6337, 6339, 6343, 6349, 6351, 6353, 6357, 6361, 6363, 6367, 6369, 6373, 6379, 6381, 6383, 6387, 6393, 6399, 6401, 6403, 6407, 6409, 6413, 6419, 6421, 6423, 6427, 6429, 6433, 6437, 6439, 6443, 6449, 6451, 6453, 6457, 6461, 6463, 6467, 6469, 6473, 6479, 6481, 6483, 6487, 6493, 6499, 6501, 6503, 6507, 6509, 6513, 6519, 6521, 6523, 6527, 6529, 6533, 6537, 6539, 6543, 6549, 6551, 6553, 6557, 6561, 6563, 6567, 6569, 6573, 6579, 6581, 6583, 6587, 6593, 6599, 6601, 6603, 6607, 6609, 6613, 6619, 6621, 6623, 6627, 6629, 6633, 6637, 6639, 6643, 6649, 6651, 6653, 6657, 6661, 6663, 6667, 6669, 6673, 6679, 6681, 6683, 6687, 6693, 6699, 6701, 6703, 6707, 6709, 6713, 6719, 6721, 6723, 6727, 6729, 6733, 6737, 6739, 6743, 6749, 6751, 6753, 6757, 6761, 6763, 6767, 6769, 6773, 6779, 6781, 6783, 6787, 6793, 6799, 6801, 6803, 6807, 6809, 6813, 6819, 6821, 6823, 6827, 6829, 6833, 6837, 6839, 6843, 6849, 6851, 6853, 6857, 6861, 6863, 6867, 6869, 6873, 6879, 6881, 6883, 6887, 6893, 6899, 6901, 6903, 6907, 6909, 6913, 6919, 6921, 6923, 6927, 6929, 6933, 6937, 6939, 6943, 6949, 6951, 6953, 6957, 6961, 6963, 6967, 6969, 6973, 6979, 6981, 6983, 6987, 6993, 6999, 7001, 7003, 7007, 7009, 7013, 7019, 7021, 7023, 7027, 7029, 7033, 7037, 7039, 7043, 7049, 7051, 7053, 7057, 7061, 7063, 7067, 7069, 7073, 7079, 7081, 7083, 7087, 7093, 7099, 7101, 7103, 7107, 7109, 7113, 7119, 7121, 7123, 7127, 7129, 7133, 7137, 7139, 7143, 7149, 7151, 7153, 7157, 7161, 7163, 7167, 7169, 7173, 7179, 7181, 7183, 7187, 7193, 7199, 7201, 7203, 7207, 7209, 7213, 7219, 7221, 7223, 7227, 7229, 7233, 7237, 7239, 7243, 7249, 7251, 7253, 7257, 7261, 7263, 7267, 7269, 7273, 7279, 7281, 7283, 7287, 7293, 7299, 7301, 7303, 7307, 7309, 7313, 7319, 7321, 7323, 7327, 7329, 7333, 7337, 7339, 7343, 7349, 7351, 7353, 7357, 7361, 7363, 7367, 7369, 7373, 7379, 7381, 7383, 7387, 7393, 7399, 7401, 7403, 7407, 7409, 7413, 7419, 7421, 7423, 7427, 7429, 7433, 7437, 7439, 7443, 7449, 7451, 7453, 7457, 7461, 7463, 7467, 7469, 7473, 7479, 7481, 7483, 7487, 7493, 7499, 7501, 7503, 7507, 7509, 7513, 7519, 7521, 7523, 7527, 7529, 7533, 7537, 7539, 7543, 7549, 7551, 7553, 7557, 7561, 7563, 7567, 7569, 7573, 7579, 7581, 7583, 7587, 7593, 7599, 7601, 7

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12. **Division series can be given such as :**

64, 32, 16, 8, 4.....

Hints : In this series given numbers are divided by 2.

13. **Addition series can be given such as :**

3, 8, 13, 18, 23.....

Hints : In this series 5 is added in each numbers.

14. **Subtraction series can be given such as :**

35, 31, 27, 23, 19.....

Hints : In this series 4 is subtracted from each numbers.

15. In this series given number can be repeated such as :

2, 22, 222, 2222, 22222.....

16. **Important Squares and Cubes, must be remembered:**

Squares	Squares	Cubes	Cubes
$1^2 = 1$	$16^2 = 256$	$1^3 = 1$	$16^3 = 4096$
$2^2 = 4$	$17^2 = 289$	$2^3 = 8$	$17^3 = 4913$
$3^2 = 9$	$18^2 = 324$	$3^3 = 27$	$18^3 = 5832$
$4^2 = 16$	$19^2 = 361$	$4^3 = 64$	$19^3 = 6859$
$5^2 = 25$	$20^2 = 400$	$5^3 = 125$	$20^3 = 8000$
$6^2 = 36$	$21^2 = 441$	$6^3 = 216$	$21^3 = 9261$
$7^2 = 49$	$22^2 = 484$	$7^3 = 343$	$22^3 = 10648$
$8^2 = 64$	$23^2 = 529$	$8^3 = 512$	$23^3 = 12167$
$9^2 = 81$	$24^2 = 576$	$9^3 = 729$	$24^3 = 13824$
$10^2 = 100$	$25^2 = 625$	$10^3 = 1000$	$25^3 = 15625$
$11^2 = 121$	$26^2 = 676$	$11^3 = 1331$	$26^3 = 17576$
$12^2 = 144$	$27^2 = 729$	$12^3 = 1728$	$27^3 = 19683$
$13^2 = 169$	$28^2 = 784$	$13^3 = 2197$	$28^3 = 21952$
$14^2 = 196$	$29^2 = 841$	$14^3 = 2744$	$29^3 = 24389$
$15^2 = 225$	$30^2 = 900$	$15^3 = 2275$	$30^3 = 27000$

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EXERCISE FOR PRACTICE

Find next number in the series :

1. 18, 21, 24, 27, 30
2. 24, 28, 32, 36, 40
3. 25, 24, 23, 22, 21
4. 64, 61, 58, 55, 52.....
5. 1, 4, 8, 16, 32.....
6. 16, 25, 36, 49, 64
7. 0, 1, 2, 3, 4.....
8. 98, 92, 87, 83, 80.....
9. 1, 4, 10, 22, 28.....
10. 10, 13, 17, 22, 28
11. 19, 17, 15, 13, 11.....
12. 11, 87, 14, 82, 17.....
13. 0, 7, 26, 63, 124
14. 11, 11, 14, 16, 17, 21.....
15. 360, 180, 60, 15.....
16. 2, 9, 28, 65, 126.....
17. 1, 3, 7, 15.....
18. 100, 81, 64, 49.....
19. 6, 19, 58, 175.....
20. 4, 9, 19, 34.....
21. 2, 4, 6, 8, 10
22. 3, 5, 9, 15
23. 0.5, 1.5, 4.5, 13.5.....
24. 6, 11, 21, 36
25. 121, 100, 81, 49.....
26. 8, 88, 888, 8888.....
27. 48, 13, 20, 27, 34, 41.....
28. 216, 125, 64, 27
29. 100, 99, 96, 91.....
30. 2, 4, 6, 12, 14, 28
31. 35, 53, 45, 54, 55, 55.....
32. 84, 103, 102, 135.....
33. 8, 11, 9, 12, 10, 13.....
34. 4, 7, 21, 24, 72
35. 4, 10, 22, 46
36. 10, 30, 120, 600.....
37. 63, 69, 68, 74, 73.....
38. 108, 90, 72, 54, 36
39. 5, 10, 13, 26, 29
40. 21, 24, 30, 33.....

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Solutions

Q No	Answer	Solutions					
1.	33	18	21	24	27	30	33
	Hints	+3	+3	+3	+3	+3	
2.	44	24	28	32	36	40	44
	Hints	+4	+4	+4	+4	+4	
3.	20	25	24	23	22	21	20
	Hints	-1	-1	-1	-1	-1	
4.	49	64	61	58	55	52	49
	Hints	-3	-3	-3	-3	-3	
5.	64	1	4	8	16	32	64
	Hints	x2	x2	x2	x2	x2	
6.	81	16	25	36	49	64	81
	Hints	4 ²	5 ²	6 ²	7 ²	8 ²	
7.	5	0	1	2	3	4	5
	Hints	(1-1)	(2-1)	(3-1)	(4-1)	(5-1)	
8.	78	98	92	87	83	80	78
	Hints	-6	-5	-4	-3	-2	
9.	94	1	4	10	22	46	94
	Hints	(1x2+2)	(4x2+2)	(8x2+2)	(10x2+2)	(12x2+2)	
10.	35	10	13	17	22	28	35
	Hints	+3	+4	+5	+6	+7	
11.	9	19	17	15	13	11	9
	Hints	-2	-2	-2	-2	-2	
12.	77	11	87	14	82	17	77
	Hints	+3	-5	+3	-5	+3	
13.	215	0	7	26	63	124	215
	Hints	(1 ³ -1)	(2 ³ -1)	(3 ³ -1)	(4 ³ -1)	(5 ³ -1)	

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Q No	Answer	Solutions						
14.	20	11	11	14	16	17	21	20
	Hints	+3	+5	+3	+5	+3	+5	
15.	3	360	180	60	15	3		
	Hints	÷2	÷3	÷4	÷5			
16.	217	2	9	28	65	126	217	
	Hints	(1^3+1)	(2^3+1)	(3^3+1)	(4^3+1)	(5^3+1)		
17.	31	1	3	7	15	31		
	Hints	+2	+4	+8	+16			
18.	36	100	81	64	49	36		
	Hints	10^2	9^2	8^2	7^2			
19.	526	6	19	58	175	526		
	Hints	$(6 \times 3 + 1)$	$(19 \times 3 + 1)$	$(58 \times 3 + 1)$	$(175 \times 3 + 1)$			
20.	54	4	9	19	34	54		
	Hints	+5	+10	+15	+20			
21.	12	2	4	6	8	10	12	
	Hints	+2	+2	+2	+2	+2		
22.	23	3	5	9	15	23		
	Hints	+2	+4	+6	+8			
23.	40.5	0.5	1.5	4.5	13.5	40.5		
	Hints	x3	x3	x3	x3			
24.	81	6	11	21	36	56	81	
	Hints	+5	+10	+15	+20	+25		
25.	36	121	100	81	64	49	36	
	Hints	11^2	10^2	9^2	8^2	7^2		
26.	88888	8	88	888	8888	88888		
	Hints	1 time	2 times	3 times	4 times	5 times		

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Ser No	Answer	Solutions						
27.	48	13	20	27	34	41	48	
	Hints	+7	+7	+7	+7	+7		
28.	8	216	125	64	27	8		
	Hints	6^3	5^3	4^3	3^3	2^3		
29.	84	100	99	96	91	84		
	Hints	-1	-3	-5	-7			
30.	30	2	4	6	12	14	28	30
	Hints	2x2	-	6x2	-	14x2	-	
31.	65	35	53	45	54	55	55	65
	Hints	+10	+1	+10	+1	+10	+1	
32.	148	84	103	102	135	148		
	Hints	+19	+17	+15	+13			
33.	11	8	11	9	12	10	13	11
	Hints	+1	+1	+1	+1	+1	+1	
34.	75	4	7	21	24	72	75	
	Hints	+3	x3	+3	x3	+3		
35.	94	4	10	22	46	94		
	Hints	(1x2+2)	(4x2+2)	(10x2+2)	(22x2+2)	(46x2+2)		
36.	3600	10	30	120	600	3600		
	Hints	x3	x4	x5	x6			
37.	79	63	69	68	74	73	79	
	Hints	+6	+1	+6	+1	+6		
38.	18	108	90	72	54	36	18	
	Hints	-18	-18	-18	-18	-18		
39.	58	5	10	13	26	29	58	
	Hints	x2		x2		x2		
40.	39	21	24	30	33	39		
	Hints	+3	+6	+3	+6			