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| **Program No.** | **Program Topic** | **Program Title** | **Page No** |
| 1 | Basic Structures: Sequences and Sum | Given a function f from {1, 2,...,n} to itself, determine whether i) f(x) = x2 ii) f(x) = x + 1 iii) f(x) = x3 + x2 + x + 1 is onto. | 01 |
| 2 | Basic Structures: Sequences and Sum | Check ⎣ 2x ⎦ = ⎣x⎦ + ⎣ ⎦ is true for integer number x = [-100 100] [Note: Check wide range of set if possible]  . | 03 |
| 3 | Basic Structures: Sequences and Sum | Find the following summation:  i) (a + nd ), where n = L to U  Where L<U, given L, U, a and d.  ii) arj where j = L to U  Where L<U, given L, U, a and r.  iii) (i + j) where i = L to U and j = L to U  Where L<U, given L, U. | 04 |

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