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CS 225

Lecture 3.3 (Sequences and Sum)

Assignment 2.4 (7th Edition): ={ 4, 29 (show work), 31( show work), 32, 34, 36, 40}

4) a) (-2)n: a0 = 1, a1 = -2, a2 = 4, a3 = -8

b) 3: a0 = 3, a1 = 3, a2 = 3, a3 = 3

c) 7 + 4n = a0 = 8, a1 = 11, a2 = 23, a3 = 71

d) 2n + ( -2)n: a0 = 2, a1 = 0, a2 = 8, a3 = 0

29) a) : k1: 1+1 = 2 k2: 2+1 = 3, k3 : 3+1 = 4, k4 : 4+1 = 5, k5 : 5+1 = 6

Sum = 2+3+4+5+6 = 20

b) = 1 + -2 + 4 + -8 + 16 = 11

c) = 3+3+3+3+3+3+3+3+3+3 = 30

d) = = 29  - 20 = 511

2-1

31) a) = 3 \* = 3 x 511 = 1533

b) = = - = 511 - 1 = 510

c) = - = - = 4923

d) = 2 \* = 2 \* 4921 = 9842

32) a) = (9 \* 1) + (1 + -1 + 1 + -1 + 1 +-1 + 1 + -1) = (9 \* 1) + 1 = 10

b) = - = 9841 - 511 = 9330

c) = 2() + 3( = 2(9841) + 3(511) = 21215

d) = = 511

34. a) = - ) = 2 = 2(1+2+3) - 3\*3 = 3

b) = = 9(0+1+2+3) + 6(1+1+1+1) = 78

c) = = 3\*3 = 9

d) = = = 36(1+4) = 180

36) can be donated as ak = . so ) from question 19.

= 1 - =

40) = = = 380477799