###### Derivation process of ctxIdxInc for the syntax element significant\_coeff\_flag

Inputs to this process are the color component index cIdx, the current coefficient scan position ( xC , yC ), the transform block width log2TrafoWidth and the transform block height log2TrafoHeight.

Output of this process is ctxIdxInc.

The variable sigCtx depends on the current position ( xC, yC ), the color component index cIdx, the transform block size and previsously decoded bins of the syntax element significant\_coeff\_flag. For the derivation of sigCtx, the following applies.

* If log2TrafoWidth is equal to log2TrafoHeight and log2TrafoWidth is equal to 2, sigCtx is derived using ctxIdxMap4x4[ ] specified in Table 9‑39 as follows..

sigCtx = ctxIdxMap4x4[ ((cIdx > 0) ? 15 : 0) + (yC << 2) + xC ] (9‑55)

* Otherwise if log2TrafoWidth is equal to log2TrafoHeight and log2TrafoWidth is equal to 3, sigCtx is derived using ctxIdxMap8x8[ ] specified in Table 9‑40 as follows.

sigCtx = ((xC + yC) = = 0) ? 10 : ctxIdxMap8x8[ ((yC >> 1 ) << 2) + (xC >> 1) ] (9‑56)

sigCtx += ( cIdx > 0) ? 6: 9 (9‑56)

* Otherwise if xC + yC is equal to 0, sigCtx is derived as follows.

sigCtx = ( cIdx > 0) ? 17: 20 (9‑57)

* Otherwise if (xC>>2) + (yC>>2) is equal to or greater than (3 << (max(log2TrafoWidth, log2TrafoHeight) − 4)), sigCtx is derived using previously decoded bins of the syntax element significant\_coeff\_flag as follows.
* The variable sigCtx is initialized as follows.

sigCtx = 0 (9‑58)

* When xC is less than ( 1 << log2TrafoWidth ) − 1, the following applies.

sigCtx = sigCtx + significant\_coeff\_flag[ xC + 1 ][ yC ] (9‑59)

* When xC is less than ( 1 << log2TrafoWidth ) − 1 and yC is less than ( 1 << log2TrafoHeight ) − 1, the following applies.

sigCtx = sigCtx + significant\_coeff\_flag[ xC + 1 ][ yC + 1 ] (9‑60)

* When xC is less than ( 1 << log2Width ) − 2, the following applies.

sigCtx = sigCtx + significant\_coeff\_flag[ xC + 2 ][ yC ] (9‑61)

* When all of the following conditions are true,
  + yC is less than ( 1 << log2TrafoHeight ) − 1,
  + xC % 4 is not equal to 0 or yC % 4 is not equal to 0,
  + xC % 4 is not equal to 3 or yC % 4 is not equal to 2,

the following applies.

sigCtx = sigCtx + significant\_coeff\_flag[ xC ][ yC + 1 ] (9‑62)

* When yC is less than ( 1 << log2TrafoHeight ) − 2 and sigCtx is less than 4, the following applies.

sigCtx = sigCtx + significant\_coeff\_flag[ xC ][ yC + 2 ] (9‑63)

* The variable sigCtx is modified as follows.
  + If cIdx is equal to 0 and xC + yC are greater than (1 << (max(log2TrafoWidth, log2TrafoHeight) − 2)) − 1, the following applies.

sigCtx = ( (sigCtx + 1) >> 1 ) + 24 (9‑63)

* + Otherwise, the following applies.

sigCtx = ( (sigCtx + 1) >> 1 ) + ( (cIdx > 0) ? 18 : 21 ) (9‑63)

* Otherwise ((xC>>2) + (yC>>2) is equal to or greater than (3 << (max(log2TrafoWidth, log2TrafoHeight) − 4))), sigCtx is derived as follows.

sigCtx = ( cIdx > 0) ? 18: 24

The context index increment ctxIdxInc is derived using the color component index cIdx and sigCtx as follows.

* If cIdx is equal to 0, ctxIdxInc is derived as follows.

ctxIdxInc = sigCtx (9‑64)

* Otherwise (cIdx is greater than 0), ctxIdxInc is derived as follows.

ctxIdxInc = 27 + sigCtx (9‑65)