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**Algorithm 1** Algorithm for finding server indices using OFG

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    ▷ %comment: servers[] contains the index of servers whose data rate are
sorted in descending order%
servers[] = index(of all servers)
serverIndex[] = servers[0..K]
linearlyIndependentServerIndex[] = 0
[Z] ← 0
for  $i = 0$  to  $serverIndex.length$  do
    ▷ %comment: find the equation corresponding the serverIndex from the
mapping at the File Server%
     $eqn = equation(serverIndex[i])$ 
    ▷ %comment: try insert equation into Z using OFG%
end for
while (  $linearlyIndependentServerIndex.length \neq K$  ) do
    ▷ %comment: remove all the server index which were not inserted in Z%
    temp[] = serverIndex[] - linearlyIndependentServerIndex
    if (  $linearlyIndependentServerIndex.length = K$  ) then
        break
    end if
end while
```

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