```
𝒲D = DigitCount[#, 2, 1] &;
computeW[a_, outType_: 0] := Module[{ad, b, genAD, weights},
  ad = FromDigits[#, 2] & /@ a;
  b = Tuples[{0, 1}, a // Length];
  genAD = Fold[BitXor] /@ ((Times[ad, #] &) /@ b) // Union;
  weights = 𝒲D /@ genAD;
  If[outType == 0,
   weights // Tally,
   {weights, genAD}
  ]
 ]

testDir =
  "E:\\Users\\shareddrivers\\YandexDisk\\proj\\core\\git\\researchClosedTasks\\test_data
    \\";
fileIn =
  "E:\\Users\\shareddrivers\\YandexDisk\\proj\\core\\git\\researchClosedTasks\\test_data
    \\in_20_32.txt";
fileOut = "E:\\data\\out.txt";

(*
dataStr=ReadList[fileIn,String];
A=(Interpreter["Number"]/@Characters@#&)/@dataStr;

w=computeW[A];
w=SortBy[w,Last]//Reverse;
*)

runOnFile[file_] := Module[{w, dataStr, A, hist, max},
  dataStr = ReadList[file, String];
  A = (Interpreter["Number"] /@ Characters@# &) /@ dataStr;
  w = computeW[A];
  max = Max[w[[ ;; , 1]] ];
  hist = Range[0, max] // Tally;
  (hist[[#[[1]] + 1, 2]] = 0) & /@ hist;
  (hist[[#[[1]] + 1, 2]] = #[[2]]) & /@ w;
  hist
 ]
```

```
writeFile[file_, w_] := Module[{stream},
  stream = OpenWrite[file];
  WriteString[stream,
     StringTemplate["`w`\t`freq`\n"][ <|"w" → #[[1]], "freq" → #[[2]]|> ]] & /@ w;
  Close[file];
 ]
writeFileError[file_, msg_] := Module[{stream},
  stream = OpenWrite[file];
  WriteString[stream, msg];
  Close[file];
 ]


runOnDir[dir_, maxTime_: 99] :=
 Module[{files, fileIn, fileOut, fname, i, tcompute = maxTime, w, fs, maxMem = 20},
  files = FileNames["*", {dir}];
  fs = {};
  For[i = 1, i ≤ Length@files, i++,
   fileIn = files[[i]];
   fname = FileNameTake[fileIn];
   fileOut = DirectoryName[fileIn] ~~ StringReplace[fname, "in" → "out_up"];
   If[
    StringMatchQ[fname, "in_*"],
    w = {};
    MemoryConstrained[
     TimeConstrained[w = runOnFile[fileIn];
       fs = AppendTo[fs, fname], tcompute,
       writeFileError[fileOut,
         "Evaluation took > then " ~~ ToString[tcompute] ~~ " seconds."];
      ];, 1024 * 1024 * 1024 * maxMem,
     writeFileError[fileOut, "Evaluation took > then " ~~ ToString[maxMem] ~~ " Gb RAM."]
    ];
    If[Length@w > 0, writeFile[fileOut, w]];
   ]
  ];
  fs
 ]
runOnDir[testDir]
```