%%

%public

%class Subst

%standalone

%unicode

%{

String name;

%}

digit = [0-9]

lasttwozeroes = {digit}\*00

threetwos ={digit}\*222{digit}\*

fivemultiple =((((11)((01))\*((00|1)0)|((10)0))((00|1))\*(01)|((11)((01))\*((00|1)1)|((10)1|0))))+

lasttenisone ={digit}\*1{digit}{9}

delim =[ \t\n]

ws ={delim}+

sumnine =0009|0018|0027|0036|0045|0054|0063|0072|0081|0090|0108|0117|0126|0135|0144|0153|0162|0171|0180|0207|0216|0225|0234|0243|0252|0261|0270|0306|0315|0324|0333|0342|0351|0360|0405|0414|0423|0432|0441|0450|0504|0513|0522|0531|0540|0603|0612|0621|0630|0702|0711|0720|0801|0810|0900|1008|1017|1026|1035|1044|1053|1062|1071|1080|1107|1116|1125|1134|1143|1152|1161|1170|1206|1215|1224|1233|1242|1251|1260|1305|1314|1323|1332|1341|1350|1404|1413|1422|1431|1440|1503|1512|1521|1530|1602|1611|1620|1701|1710|1800|2007|2016|2025|2034|2043|2052|2061|2070|2106|2115|2124|2133|2142|2151|2160|2205|2214|2223|2232|2241|2250|2304|2313|2322|2331|2340|2403|2412|2421|2430|2502|2511|2520|2601|2610|2700|3006|3015|3024|3033|3042|3051|3060|3105|3114|3123|3132|3141|3150|3204|3213|3222|3231|3240|3303|3312|3321|3330|3402|3411|3420|3501|3510|3600|4005|4014|4023|4032|4041|4050|4104|4113|4122|4131|4140|4203|4212|4221|4230|4302|4311|4320|4401|4410|4500|5004|5013|5022|5031|5040|5103|5112|5121|5130|5202|5211|5220|5301|5310|5400|6003|6012|6021|6030|6102|6111|6120|6201|6210|6300|7002|7011|7020|7101|7110|7200|8001|8010|8100|9000

increasingnumbers =0000|0001|0002|0003|0004|0005|0006|0007|0008|0009|0011|0012|0013|0014|0015|0016|0017|0018|0019|0022|0023|0024|0025|0026|0027|0028|0029|0033|0034|0035|0036|0037|0038|0039|0044|0045|0046|0047|0048|0049|0055|0056|0057|0058|0059|0066|0067|0068|0069|0077|0078|0079|0088|0089|0099|0111|0112|0113|0114|0115|0116|0117|0118|0119|0122|0123|0124|0125|0126|0127|0128|0129|0133|0134|0135|0136|0137|0138|0139|0144|0145|0146|0147|0148|0149|0155|0156|0157|0158|0159|0166|0167|0168|0169|0177|0178|0179|0188|0189|0199|0222|0223|0224|0225|0226|0227|0228|0229|0233|0234|0235|0236|0237|0238|0239|0244|0245|0246|0247|0248|0249|0255|0256|0257|0258|0259|0266|0267|0268|0269|0277|0278|0279|0288|0289|0299|0333|0334|0335|0336|0337|0338|0339|0344|0345|0346|0347|0348|0349|0355|0356|0357|0358|0359|0366|0367|0368|0369|0377|0378|0379|0388|0389|0399|0444|0445|0446|0447|0448|0449|0455|0456|0457|0458|0459|0466|0467|0468|0469|0477|0478|0479|0488|0489|0499|0555|0556|0557|0558|0559|0566|0567|0568|0569|0577|0578|0579|0588|0589|0599|0666|0667|0668|0669|0677|0678|0679|0688|0689|0699|0777|0778|0779|0788|0789|0799|0888|0889|0899|0999|1111|1112|1113|1114|1115|1116|1117|1118|1119|1122|1123|1124|1125|1126|1127|1128|1129|1133|1134|1135|1136|1137|1138|1139|1144|1145|1146|1147|1148|1149|1155|1156|1157|1158|1159|1166|1167|1168|1169|1177|1178|1179|1188|1189|1199|1222|1223|1224|1225|1226|1227|1228|1229|1233|1234|1235|1236|1237|1238|1239|1244|1245|1246|1247|1248|1249|1255|1256|1257|1258|1259|1266|1267|1268|1269|1277|1278|1279|1288|1289|1299|1333|1334|1335|1336|1337|1338|1339|1344|1345|1346|1347|1348|1349|1355|1356|1357|1358|1359|1366|1367|1368|1369|1377|1378|1379|1388|1389|1399|1444|1445|1446|1447|1448|1449|1455|1456|1457|1458|1459|1466|1467|6999|7777|7778|7779|7788|7789|7799|7888|7889|7899|7999|8888|8889|8899|8999|9999

increasingnumbers2 =1468|1469|1477|1478|1479|1488|1489|1499|1555|1556|1557|1558|1559|1566|1567|1568|1569|1577|1578|1579|1588|1589|1599|1666|1667|1668|1669|1677|1678|1679|1688|1689|1699|1777|1778|1779|1788|1789|1799|1888|1889|1899|1999|2222|2223|2224|2225|2226|2227|2228|2229|2233|2234|2235|2236|2237|2238|2239|2244|2245|2246|2247|2248|2249|2255|2256|2257|2258|2259|2266|2267|2268|2269|2277|2278|2279|2288|2289|2299|2333|2334|2335|2336|2337|2338|2339|2344|2345|2346|2347|2348|2349|2355|2356|2357|2358|2359|2366|2367|2368|2369|2377|2378|2379|2388|2389|2399|2444|2445|2446|2447|2448|2449|2455|2456|2457|2458|2459|2466|2467|2468|2469|2477|2478|2479|2488|2489|2499|2555|2556|2557|2558|2559|2566|2567|2568|2569|2577|2578|2579|2588|2589|2599|2666|2667|2668|2669|2677|2678|2679|2688|2689|2699|2777|2778|2779|2788|2789|2799|2888|2889|2899|2999|3333|3334|3335|3336|3337|3338|3339|3344|3345|3346|3347|3348|3349|3355|3356|3357|3358|3359|3366|3367|3368|3369|3377|3378|3379|3388|3389|3399|3444|3445|3446|3447|3448|3449|3455|3456|3457|3458|3459|3466|3467|3468|3469|3477|3478|3479|3488|3489|3499|3555|3556|3557|3558|3559|3566|3567|3568|3569|3577|3578|3579|3588|3589|3599|3666|3667|3668|3669|3677|3678|3679|3688|3689|3699|3777|3778|3779|3788|3789|3799|3888|3889|3899|3999|4444|4445|4446|4447|4448|4449|4455|4456|4457|4458|4459|4466|4467|4468|4469|4477|4478|4479|4488|4489|4499|4555|4556|4557|4558|4559|4566|4567|4568|4569|4577|4578|4579|4588|4589|4599|4666|4667|4668|4669|4677|4678|4679|4688|4689|4699|4777|4778|4779|4788|4789|4799|4888|4889|4899|4999|5555|5556|5557|5558|5559|5566|5567|5568|5569|5577|5578|5579|5588|5589|5599|5666|5667|5668|5669|5677|5678|5679|5688|5689|5699|5777|5778|5779|5788|5789|5799|5888|5889|5899|5999|6666|6667|6668|6669|6677|6678|6679|6688|6689|6699|6777|6778|6779|6788|6789|6799|6888|6889|6899

%%

{ws} { }

{lasttwozeroes} {System.out.print(yytext()+" is Accepted by a\n");}

{threetwos} {System.out.print(yytext()+" is Accepted by b\n");}

{fivemultiple} {System.out.print(yytext()+" is Accepted by d\n");}

{lasttenisone} {System.out.print(yytext()+" is Accepted by e\n");}

{sumnine} {System.out.print(yytext()+" is Accepted by f\n");}

{increasingnumbers} {System.out.print(yytext()+" is Accepted by g\n");}

{increasingnumbers2} {System.out.print(yytext()+" is Accepted by g\n");}

{digit}\* {System.out.print(yytext()+" is Not accepted by any rule\n");}

