| ID | 1 |
| :---: | :---: |
| 4-digit summary | $=+\mathrm{B}$ 6 $61+\mathrm{B} \$ 5^{*} 10+\mathrm{B} \$ 4 * 100+\mathrm{B}$ \$ ${ }^{*} 1000$ |
| 11 PR | 0 |
| 10 PnotR | 0 |
| 01 notPR | 0 |
| 00 notPnotR | 0 |
| P (is possible) = notP is unnecessary | =IF(B3+B4=0;" ";B\$1) |
| notP (is possible) $=\mathbf{P}$ is unnecessary | =IF(B5+B6=0;" ";B\$1) |
| $P$ is necessary $=$ not $P$ is impossible | =IF(AND(B3+B4>0;B5+B6=0);B\$1;" ") |
| not $P$ is necessary $=P$ is impossible | =IF(AND(B5+B6>0;B3+B4=0);B\$1;" ") |
| R (is possible) = not R is unnecessary | =IF(B3+B5=0;" ";B\$1) |
| not R (is possible) $=\mathbf{R}$ is unnecessary | =IF(B4+B6=0;" ";B\$1) |
| R is necessary = notR is impossible | =IF(AND(B3+B5>0; $\mathrm{B4} 4+\mathrm{B6}=0$ );B\$1;" ") |
| not R is necessary $=\mathrm{R}$ is impossible | =IF(AND(B4+B6>0; B3+B5=0);B\$1;" ") |
| both items contingent |  |
| one or both items incontingent | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;OR(B\$5+B\$6=0;B\$3+B\$4=0;B\$4+B\$6=0;B\$3+B\$5=0));B\$1;" ") |
| ( $P+R$ ) is possible $=$ if $P$, not-then not $R$ | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B3=1);B\$1;" ") |
| $(P+$ not $R)$ is possible $=$ if $P$, not-then $R$ | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B4=1);B\$1;" ") |
| ( $\operatorname{notP}+\mathrm{R})$ is possible $=$ if notP, not-then notR | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B5=1);B\$1;" ") |
| (notP + notR) is possible $=$ if notP, not-then $R$ | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B6=1); B \$1;" ") |
| $(P+R)$ is impossible $=$ if $P$, then not $R$ | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B3=0);B\$1;" ") |
| ( $P+$ notR) is impossible $=$ if $P$, then $R$ | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B4=0);B\$1;" ") |
| (notP + R) is impossible $=$ if notP, then notR | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B5=0);B\$1;" ") |
| ( $n$ ( ${ }^{\text {P } P+\text { notR) is impossible }=\text { if notP, then } R}$ | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B6=0);B\$1;" ") |
| ( $\mathrm{P}+\mathrm{R}$ ) is unnecessary | =IF(B\$4+B\$5+B\$6>0;B\$1;" ") |
| ( $P+$ not $R$ ) is unnecessary | =IF(B\$3+B\$5+B\$6>0;B\$1;" ") |
| ( ( otP $+R$ ) is unnecessary | =IF(B\$3+B\$4+B\$6>0;B\$1;" ") |
| ( $n$ ( $P$ + + notR) is unnecessary | =IF(B\$3+B\$4+B\$5>0; B \$1;" ") |
| ( $P+R$ ) is necessary | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B\$4+B\$5+B\$6=0);B\$1;" ") |
| (P+notR) is necessary | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B\$3+B\$5+B\$6=0);B\$1;" ") |
| (notP + R) is necessary | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B\$3+B\$4+B\$6=0);B\$1;" ") |
| (notP + not $R$ ) is necessary | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B\$3+B\$4+B\$5=0);B\$1;" ") |
| causation complete m | =IF(AND(B\$3+B\$6=2;B\$4=0);B\$1;" ") |
| causation necessary n | =IF(AND(B\$3+B\$6=2; B \$5=0); B \$1;" ") |
| causation partial (abs) p | =IF(B\$3+B\$4+B\$6=3;B\$1;" ") |
| causation contingent (abs) q | =IF(B\$3+B\$5+B\$6=3;B\$1;" ") |
| NOT m | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B33=" ");B\$1;" ") |
| NOT n | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B34=" ");B\$1;" ") |
| NOT p (abs) | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B35=" ");B\$1;" ") |
| NOT q (abs) | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B36=" ");B\$1;" ") |
| complete necessary causation mn | =IF(AND(B33=B\$1;B34=B\$1);B\$1;" ") |
| complete contingent causation mq (abs) | =IF(AND(B33=B\$1;B36=B\$1);B\$1;" ") |
| necessary partial causation np (abs) | =IF(AND(B34=B\$1;B35=B\$1);B\$1;" ") |
| partial contingent causation pq (abs) | =IF(AND(B35=B\$1;B36=B\$1);B\$1;" ") |
| NOT(mn) | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B41=" ");B\$1;" ") |
| NOT(mq) | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B42=" ");B\$1;" ") |
| NOT(np) | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B43=" ");B\$1;" ") |
| NOT(pq) | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B44=" ");B\$1;" ") |
| m-alone abs | =IF(AND(B33=B\$1;B34=" ";B36="");B\$1;" ") |
| n-alone abs |  |
| p-alone abs | =IF(AND(B35=B\$1;B34=" ";B36="");B\$1;" ") |
| q-alone abs | =IF(AND(B36=B\$1;B33="";B35="");B\$1;" ") |
| strong causation $\mathrm{s}=\mathrm{m}$ or n | =IF(OR(B33=B\$1;B34=B\$1);B\$1;" ") |
| weak causation $\mathrm{w}=\mathrm{p}$ or q (abs) | =IF(OR(B35=B\$1;B36=B\$1);B\$1;" ") |
| unspecified causation $\mathbf{c}=\mathbf{s}$ or $\mathbf{w}$ (abs) | =IF(OR(B33=B\$1;B34=B\$1;B35=B\$1;B36=B\$1);B\$1;" ") |
| NOT s | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B53=" ");B\$1;" ") |
| NOT w | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B54=" ");B\$1;" ") |
| NOT c | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B55=" ");B\$1;" ") |
| complete prevention by P of $\mathbf{R}$ |  |
| necessary prevention by P of R |  |
| partial (abs) prevention by P of R | =IF(B\$4+B\$3+B\$5=3;B\$1;" ") |
| contingent (abs) prevention by P of R | =IF(B\$4+B\$6+B\$5=3;B\$1;" ") |
| NOT complete prevention by $P$ of $R$ | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B59=" ");B\$1;" ") |
| NOT necessary prevention by P of R | =IF(AND(B\$3+B\$4+B\$5+B\$670;B60=" ");B\$1;" ") |
| NOT partial (abs) prevention by P of R | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B61=" ");B\$1;" ") |
| NOT contingent (abs) prevention by $P$ of $R$ | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B62=" ");B\$1;" ") |
| prevention (abs) by P of R | =IF(OR(B59=B\$1;B60=B\$1;B61=B\$1;B62=B\$1);B\$1;" ") |
| NOT prevention (abs) by P of R | =IF(AND(B\$3+B\$4+B\$5+B\$670;B67=" ");B\$1;" ") |
| notPnotR complete causation m | =IF(AND(B\$3+B\$6=2;B\$5=0);B\$1;" ") |
| notPnotR necessary causation n | =IF(AND(B\$3+B\$6=2;B\$4=0);B\$1;" ") |
| notPnotR partial causation (abs) p | =IF(B\$3+B\$5+B\$6=3;B\$1;" ") |
| notPnotR contingent causation (abs) $q$ | =IF(B\$3+B\$4+B\$6=3;B\$1;" ") |
| notPR complete causation m |  |
| notPR necessary causation n | =IF(AND(B\$4+B\$5=2;B\$3=0);B\$1;" ") |
| notPR partial causation (abs) p | =IF(B\$4+B\$6+B\$5=3;B\$1;" ") |
| notPR contingent causation (abs) $q$ | =IF(B\$4+B\$3+B\$5=3;B\$1;" ") |
| connection (abs) by P of R | =IF(OR(B\$55=B\$1;B\$67=B\$1);B\$1;" ") |
| NOT connection (abs) by P of R | =IF(AND(B\$3+B\$4+B\$5+B\$6>0;B77=" ");B\$1;" ") |
| interpretations of the individual moduses | impossible modus |
| summary |  |
| =COUNTA(A1:A79) |  |

