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Kas [ $x : X[i_, j_, k_, l_] ] :=
  Kas@If[PositiveQ[ $x$ ],  $X_{-i,j,k,-l}$ ,  $\bar{X}_{-j,k,l,-i}$ ];

Kas [ $(x : X \mid \bar{X})_{fs\_}$ ] := Module[{ $v = 2u^2 - 1$ ,  $p$ ,  $\eta s$ ,  $m$ },
   $\eta s = \eta_{\#}$  & /@ { $fs$ };  $p = (x === X)$ ;

   $m = \text{If}[p, \begin{pmatrix} v & u & 1 & u \\ u & 1 & u & 1 \\ 1 & u & v & u \\ u & 1 & u & 1 \end{pmatrix}, -\begin{pmatrix} v & u & 1 & u \\ u & 1 & u & 1 \\ 1 & u & v & u \\ u & 1 & u & 1 \end{pmatrix}];

  CF@ $\Sigma_B[\{fs\}] [\text{If}[p, -1, 1], \text{PQ}[\{\}, \eta s^* . m . \eta s]]]$$$ 
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