$$r(\mathbf{x}_2, \mathbf{a}_2) = 0 \qquad r(\mathbf{x}_3, \mathbf{a}_1) = 1$$

$$r(\mathbf{x}_2, \mathbf{a}_1) = 3 \qquad r(\mathbf{x}_1, \mathbf{a}_k) = 0 \qquad r(\mathbf{x}_3, \mathbf{a}_2) = 2$$