

24C

How could this
notion be achieved
set theoretically?
Note: It involves pairs
of elements of S .

1st step

Need $<$ to be a
subset G of $S \times S = \{(a, b) : a, b \in S\}$

For all a, b, c in S

(i) $(a, b) \in G \iff (b, a) \in G$

(ii) if (a, b) and $(b, c) \in G$
then $(a, c) \in G$