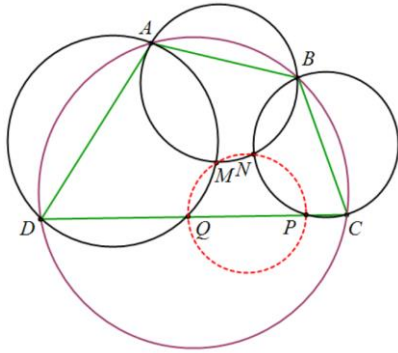


**Example 2 23 :** As shown in the figure, the four points  $A, B, C$ , and  $D$  share a circle, the four points  $A, D, Q$ , and  $M$  share a circle, the four points  $P, C, B$ , and  $N$  share a circle, and  $A, M, N$ , and  $B$  are in a circle, to prove:  $M, N, P, Q$  are in a circle.



$$\frac{\frac{M-N}{M-Q} \frac{B-C}{B-N} \frac{N-B}{M-N} \frac{Q-M}{D-C} \frac{A-B}{A-D}}{\frac{P-N}{C-D} \frac{A-B}{A-M} \frac{C-B}{D-C}} = 1,$$