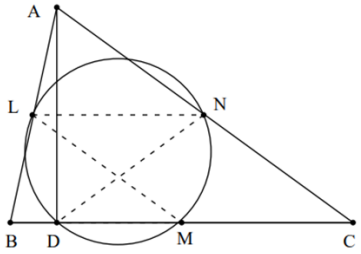
Example 174 : As shown in Figure 3, in △ ABC, AD is high, and M, N, L are the midpoints of BC, CA, AB respectively. Prove that D, M, N, L share a circle.



$$\frac{N-D}{N-L}\frac{M-L}{M-D}=\frac{B-C}{N-L}\frac{M-L}{C-A}\left(\frac{N-D}{B-C}\frac{C-A}{M-D}\right),$$