



Figure 11

Example 7 : As shown in Figure 11, the trapezoid $ABCD$, $AB \parallel DC$, and the midpoint of AC is O , to prove: $DA = DB \Leftrightarrow \angle ODC = \angle BCD$.

Proof: Suppose $D = t(A - B) + C$, $\frac{A - D}{B - A} = T$, $\frac{\frac{C - B}{D - C}}{D - \frac{A + C}{2}} = T_1$, $T = t(1 - t + 2tT_1)$.