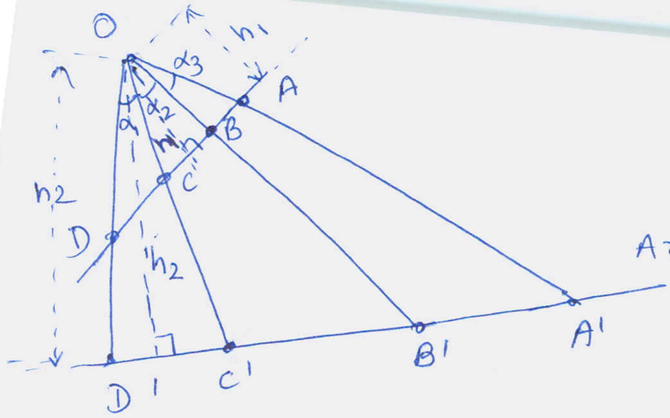

To prove that

$$\boxed{\frac{CB}{CD} \times \frac{AD}{AB} = \frac{C'B'}{C'D'} \times \frac{A'D'}{A'B'}}$$

Area

$$A(\Delta COB) = \frac{1}{2} CB \cdot h_1 = \frac{1}{2} OC \cdot OB \cdot \sin\alpha_2$$

$$A(\Delta C'OB') = \frac{1}{2} C'B' \cdot h_2 = \frac{1}{2} OC' \cdot OB' \cdot \sin\alpha_2$$

$$\therefore \frac{h_2}{h_1} = \frac{OC' \cdot OB'}{OC \cdot OB} \cdot \frac{CB}{C'B'}$$

(Similarly use ΔDOC & $\Delta D'OC'$)

$$\text{|||}^{ly} \quad \frac{h_2}{h_1} = \cancel{\frac{OD' \cdot OC'}{OD' \cdot OC'}} = \frac{OD' \cdot OC'}{OD \cdot OC} \cdot \frac{DC}{D'C'}$$

$$\therefore \frac{O\cancel{C'} \cdot OB'}{\cancel{O}C \cdot OB} \frac{CB}{C'B'} = \frac{OD' \cdot O\cancel{C'}}{OD \cdot \cancel{O}C} \cdot \frac{DC}{D'C'} \quad \text{——— (1)}$$

~~from~~

$$A(\Delta AOB) = \frac{1}{2} \cdot AB \cdot h_1 = \frac{1}{2} \cdot OB \cdot OA \cdot \sin\alpha_3$$

$$A(\Delta A'OB') = \frac{1}{2} A'B' \cdot h_2 = \frac{1}{2} \cdot OA' \cdot OB' \sin\alpha_3$$

$$\Rightarrow \frac{h_2}{h_1} = \frac{OA' \cdot OB'}{OB \cdot OA} \cdot \frac{AB}{A'B'}$$

(|||'y from ΔAOD & $\Delta A'OD'$) $$\frac{h_2}{h_1} = \frac{OA' \cdot OD'}{OA \cdot OD} \cdot \frac{AD}{A'D'}$$

$$\therefore \frac{\cancel{OA'} \cdot OB'}{OB \cdot \cancel{OA}} \cdot \frac{AB}{A'B'} = \frac{\cancel{OA'} \cdot OD' \cdot AD}{\cancel{OA} \cdot OD \cdot A'D'} \quad \text{——— (2)}$$

$$(1) \div (2) \quad (CB/C'B') \Big/ \left(\frac{AB}{A'B'}\right) = (DC/D'C') \Big/ (AD/A'D')$$

$$\Rightarrow \frac{CB}{C'B'} \frac{A'B'}{AB} = \frac{DC}{D'C'} \frac{A'D'}{AD} \Rightarrow \boxed{\frac{CB}{DC} \times \frac{AD}{AB} = \frac{C'B'}{C'D'} \times \frac{A'D'}{A'B'}}$$

Thus proved.