



Example 199 : As shown in Figure 1 , it is known that $APRT$ and $AQSC$ are both straight lines , and $AP = PQ = QR = RS = ST$. Prove: $\angle CST = 5 \angle AQP$.

$$\frac{\left(\frac{Q-P}{C-A}\right)^5}{\frac{A-C}{S-T}} = \left(\frac{Q-P}{C-A}\right)^4 \frac{\frac{P-Q}{A-P} \frac{A-C}{S-R} \frac{R-S}{T-S}}{\frac{A-C}{A-P} \frac{Q-R}{C-A} \frac{A-P}{T-S}},$$