



Example 69 : As shown in Figure 3, in $\triangle ABC$, H is the orthocenter, CF is the height, and the feet of F on AC , AH , and BC are P , Q , and T respectively. Prove: P , Q , and T are collinear.

$$\frac{P-Q}{P-T} = \frac{\frac{F-P}{F-C} \frac{Q-P}{Q-A}}{\frac{T-P}{T-C} \frac{F-P}{F-A}} \left(\frac{Q-A}{T-C} \frac{F-C}{F-A} \right),$$