

**Example 119 :** As shown in Figure 3,  $\triangle ABC$ ,  $AB = AC$ , if the bisector of  $\angle B$  intersects  $AC$  at  $P$ . Prove that  $\angle APB = 3 \angle PBC$ .

$$\frac{\left(\frac{B-P}{B-C}\right)^3}{\frac{P-B}{P-A}} = \frac{\frac{B-P}{B-C} \frac{B-A}{B-C} \frac{A-P}{A-C}}{\frac{B-A}{B-P} \frac{C-B}{C-A}}$$