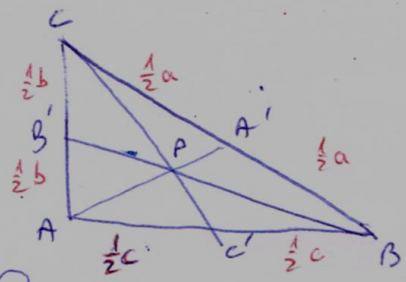


1.67
5



(א)

$$AC^2 + AB^2 = CB^2$$

$$b^2 + c^2 = a^2$$

$$b^2 + 2b^2 = a^2 \rightarrow a = \sqrt{3}b$$

$$B'B = \sqrt{AB'^2 + AB^2} = \sqrt{\frac{1}{4}b^2 + c^2} = \sqrt{\frac{1}{4}b^2 + 2b^2} = 1.5b$$

$$C'C = \sqrt{AC^2 + AC'^2} = \sqrt{b^2 + \frac{1}{4}c^2} = \sqrt{b^2 + \frac{1}{2}b^2} = \frac{\sqrt{6}}{2}b$$

$$AA' = \frac{1}{2}BC = \frac{1}{2}a = \frac{1}{2}\sqrt{3}b$$

(ב)

$$\frac{AC}{AB} = \frac{AC'}{AC}$$

$$\frac{b}{c} = \frac{\frac{1}{2}c}{b}$$

$$b^2 = \frac{1}{2}c^2$$

נראה שיש

נראה שיש x c נוב/אפ

(3.3.3) $\triangle ABC \sim \triangle Acc'$

(ג)

$$\frac{AC'}{AC} = \frac{AC}{AP} = \frac{Ac'}{Pc'}$$

$$\rightarrow \frac{\frac{\sqrt{6}}{2}b}{\frac{1}{2}c} = \frac{b}{\frac{1}{3}\sqrt{3}b} = \frac{\frac{1}{2}c}{\frac{1}{3}\sqrt{6}b}$$

$$\frac{\frac{\sqrt{6}}{2}b}{\frac{1}{2}\sqrt{2}b} = \frac{\frac{1}{2}\sqrt{2}b}{\frac{\sqrt{6}}{6}b} \rightarrow \sqrt{3} = \sqrt{3} = \sqrt{3} \checkmark$$

$$\angle CPA = \angle CAC' = 90^\circ$$

1.67