

0.4 ① (S.S) $\triangle BKP \sim \triangle BHM \sim \triangle BAC$

$BH = 2a$ $BP = \frac{1}{2}b$ (NO)

$$\frac{BP}{BH} = \frac{BK}{BH} \rightarrow \frac{\frac{1}{2}b}{2a} = \frac{BK}{b} \rightarrow BK = \frac{b^2}{4a}$$

$$\frac{BP}{BC} = \frac{BK}{BA} \rightarrow \frac{\frac{1}{2}b}{BC} = \frac{\frac{b^2}{4a}}{4a} \rightarrow BC = \frac{\frac{1}{2}b \cdot 16a^2}{b^2} = \frac{8a^2}{b}$$

$$\frac{BH}{BC} = \frac{b}{\frac{8a^2}{b}} = \frac{b^2}{8a^2}$$

$$\frac{BK}{BH} = \frac{\frac{b^2}{4a}}{2a} = \frac{b^2}{8a^2}$$

$\Rightarrow \Rightarrow$ $KH \parallel MC$
 $\Rightarrow \Rightarrow$ $OK \parallel MD$

② $\frac{BP}{BH} = \frac{BK}{BH} \rightarrow \frac{\frac{1}{2}b}{BH} = \frac{a}{b} \rightarrow \boxed{BH = \frac{b^2}{2a}}$

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