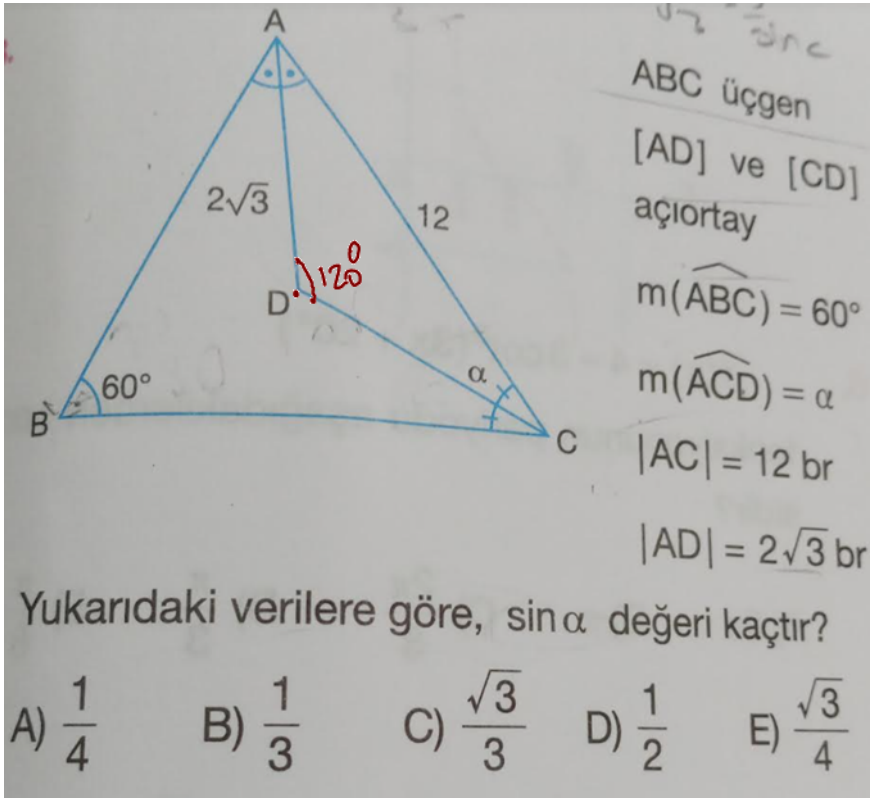

ABC üçgen

[AD] ve [CD] açıortay

$m(\widehat{ABC}) = 60°$

$m(\widehat{ACD}) = \alpha$

$|AC| = 12$ br

$|AD| = 2\sqrt{3}$ br

Yukarıdaki verilere göre, $\sin\alpha$ değeri kaçtır?

A) $\frac{1}{4}$ B) $\frac{1}{3}$ C) $\frac{\sqrt{3}}{3}$ D) $\frac{1}{2}$ E) $\frac{\sqrt{3}}{4}$

$m(\hat{D}) = 90° + \frac{60°}{2} = 120°$

$$\frac{12}{\sin 120°} = \frac{2\sqrt{3}}{\sin\alpha}$$

$$\frac{12}{\frac{\sqrt{3}}{2}} = \frac{2\sqrt{3}}{\sin\alpha}$$

$$\frac{24}{\sqrt{3}} = \frac{2\sqrt{3}}{\sin\alpha} \Rightarrow \sin\alpha = \frac{2\sqrt{3}\cdot\sqrt{3}}{24} = \frac{3}{12} = \frac{1}{4}$$