

正弦定理

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C} = 2R$$

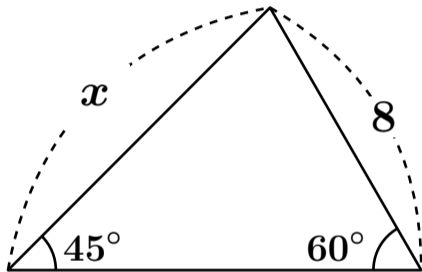
(R は外接円の半径)

正弦定理

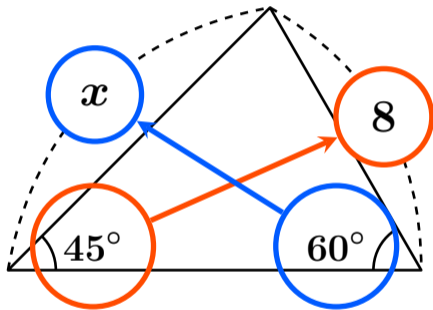
$$\frac{\text{角度の向かいの辺}}{\sin \text{角度}} = \frac{\text{角度の向かいの辺}}{\sin \text{角度}} = 2 \times \text{外接円の半径}$$

『角度』と『向かいの辺』をペアにする

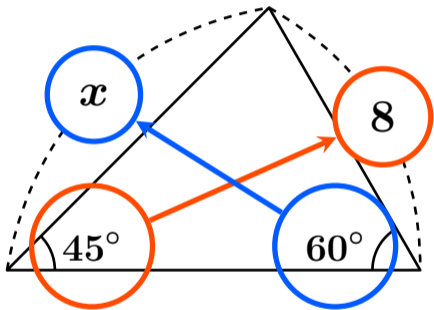
辺 x の長さを求めなさい



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$$\frac{x}{\sin 60^\circ} = \frac{8}{\sin 45^\circ}$$

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x を出すにはこれが邪魔

辺 x の長さを求めなさい

$$\sin 60^\circ \times \frac{x}{\sin 60^\circ} = \frac{8}{\sin 45^\circ} \times \sin 60^\circ$$

両辺に $\sin 60^\circ$ をかけ算する

辺 x の長さを求めなさい

$$\cancel{\sin 60^\circ} \times \frac{x}{\cancel{\sin 60^\circ}} = \frac{8}{\sin 45^\circ} \times \sin 60^\circ$$

辺 x の長さを求めなさい

$$\cancel{\sin 60^\circ} \times \frac{x}{\cancel{\sin 60^\circ}} = \frac{8}{\sin 45^\circ} \times \sin 60^\circ$$

$x =$ が計算できる

辺 x の長さを求めなさい

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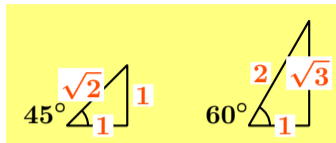
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$$x = 8 \div \sin 45^\circ \times \sin 60^\circ$$

辺 x の長さを求めなさい

$$\frac{x}{\sin 60^\circ} = \frac{8}{\sin 45^\circ}$$

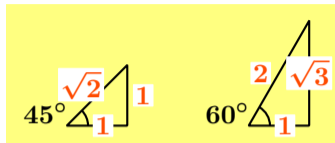


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$$\begin{aligned} x &= 8 \div \sin 45^\circ \times \sin 60^\circ \\ &= 8 \div \frac{1}{\sqrt{2}} \times \frac{\sqrt{3}}{2} \end{aligned}$$

辺 x の長さを求めなさい

$$x = 8 \div \frac{1}{\sqrt{2}} \times \frac{\sqrt{3}}{2}$$

辺 x の長さを求めなさい

$$\begin{aligned}x &= 8 \div \frac{1}{\sqrt{2}} \times \frac{\sqrt{3}}{2} \\ &= 8 \times \frac{\sqrt{2}}{1} \times \frac{\sqrt{3}}{2}\end{aligned}$$

辺 x の長さを求めなさい

$$\begin{aligned}x &= 8 \div \frac{1}{\sqrt{2}} \times \frac{\sqrt{3}}{2} \\ &= 8 \times \frac{\sqrt{2}}{1} \times \frac{\sqrt{3}}{2} \\ &= \cancel{4}8 \times \frac{\sqrt{2}}{1} \times \frac{\sqrt{3}}{\cancel{2}1}\end{aligned}$$

辺 x の長さを求めなさい

$$\begin{aligned}x &= 8 \div \frac{1}{\sqrt{2}} \times \frac{\sqrt{3}}{2} \\&= 8 \times \frac{\sqrt{2}}{1} \times \frac{\sqrt{3}}{2} \\&= \cancel{4}8 \times \frac{\sqrt{2}}{1} \times \frac{\sqrt{3}}{\cancel{2}1} \\&= 4 \times \sqrt{2} \times \sqrt{3}\end{aligned}$$

辺 x の長さを求めなさい

$$\begin{aligned}x &= 8 \div \frac{1}{\sqrt{2}} \times \frac{\sqrt{3}}{2} \\&= 8 \times \frac{\sqrt{2}}{1} \times \frac{\sqrt{3}}{2} \\&= \cancel{4}8 \times \frac{\sqrt{2}}{1} \times \frac{\sqrt{3}}{\cancel{2}1} \\&= 4 \times \sqrt{2} \times \sqrt{3} = 4\sqrt{6} \quad \boxed{\text{答}}\end{aligned}$$