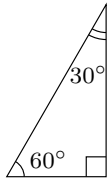
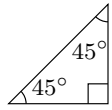
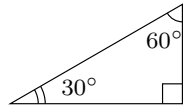


氏名 \_\_\_\_\_

次の直角三角形を用いて  $30^\circ$ ,  $45^\circ$ ,  $60^\circ$  の  $\sin$ ,  $\cos$ ,  $\tan$  の値を求めなさい。



$$\sin 30^\circ = \square$$

$$\sin 45^\circ = \square$$

$$\sin 60^\circ = \square$$

$$\cos 30^\circ = \square$$

$$\cos 45^\circ = \square$$

$$\cos 60^\circ = \square$$

$$\tan 30^\circ = \square$$

$$\tan 45^\circ = \square$$

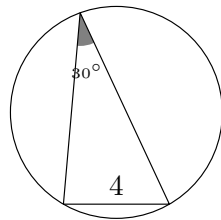
$$\tan 60^\circ = \square$$

■ 正弦定理 (正弦とは  $\sin$  のことです)

正弦定理を使うと、外接円の半径  $R$  を求めることができる。

$$\frac{\text{角度の向かい側にある辺の長さ}}{\sin \text{角度}} = 2R$$

例題 右の三角形で、 $\triangle ABC$  の外接円の半径  $R$  を求めよ。

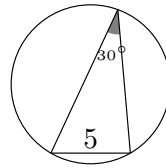


解

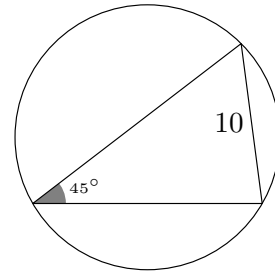
$$\begin{aligned} \frac{4}{\sin 30^\circ} &= 2R \\ \frac{1}{1/2} \times \frac{4}{\sin 30^\circ} &= 2R \times \frac{1}{2} \\ \frac{2}{\sin 30^\circ} &= R \\ 2 \div \sin 30^\circ &= R \\ 2 \div \frac{1}{2} &= R \\ 2 \times \frac{2}{1} &= R \\ 4 &= R \end{aligned}$$

1 次の三角形の外接円の半径  $R$  を求めなさい。

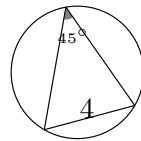
(1)



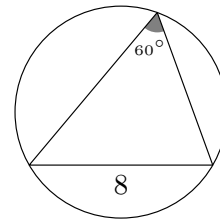
(2)



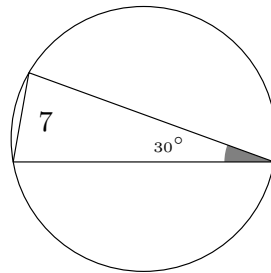
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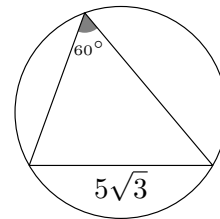
(4)



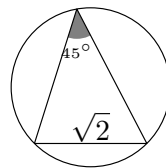
(5)



(6)



(7)



(8)

