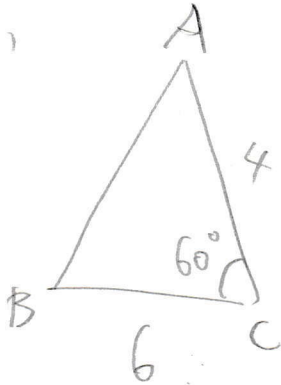


Zukunft 09 ✓

次の図形の面積を求めよ。

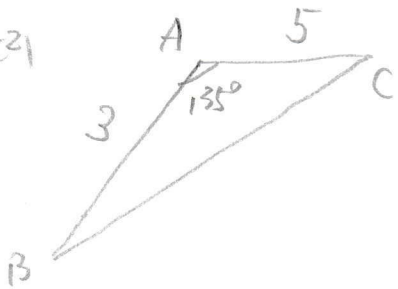
- (1) $a = 6, b = 4, \angle C = 60^\circ$ の $\triangle ABC$
- (2) $b = 5, c = 3, \angle A = 135^\circ$ の $\triangle ABC$
- (3) 1 辺の長さが 2 である正三角形
- (4) 半径 2 の円に内接する正六角形

(1)



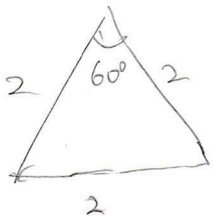
$$\begin{aligned} S &= \frac{1}{2} \cdot 4 \cdot 6 \cdot \sin 60^\circ \\ &= \frac{1}{2} \cdot 4 \cdot 6 \cdot \frac{\sqrt{3}}{2} \\ &= \underline{\underline{6\sqrt{3}}} \end{aligned}$$

(2)



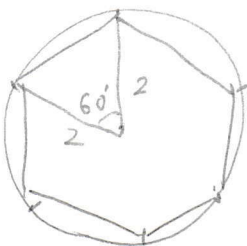
$$\begin{aligned} S &= \frac{1}{2} \cdot 3 \cdot 5 \cdot \sin 135^\circ \\ &= \frac{1}{2} \cdot 3 \cdot 5 \cdot \frac{1}{\sqrt{2}} \\ &= \underline{\underline{\frac{15\sqrt{2}}{4}}} \end{aligned}$$

(3)



$$\begin{aligned} S &= \frac{1}{2} \cdot 2 \cdot 2 \cdot \sin 60^\circ \\ &= \frac{1}{2} \cdot 2 \cdot 2 \cdot \frac{\sqrt{3}}{2} = \underline{\underline{\sqrt{3}}} \end{aligned}$$

(4)



$$\begin{aligned} S &= \frac{1}{2} \cdot 2 \cdot 2 \cdot \sin 60^\circ \times 6 \\ &= \frac{1}{2} \cdot 2 \cdot 2 \cdot \frac{\sqrt{3}}{2} \times 6 \\ &= \underline{\underline{6\sqrt{3}}} \end{aligned}$$