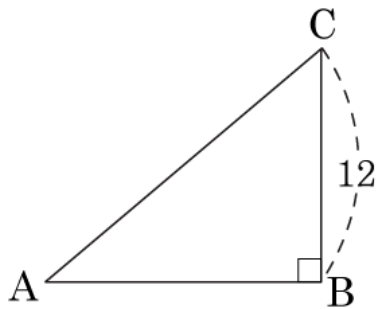
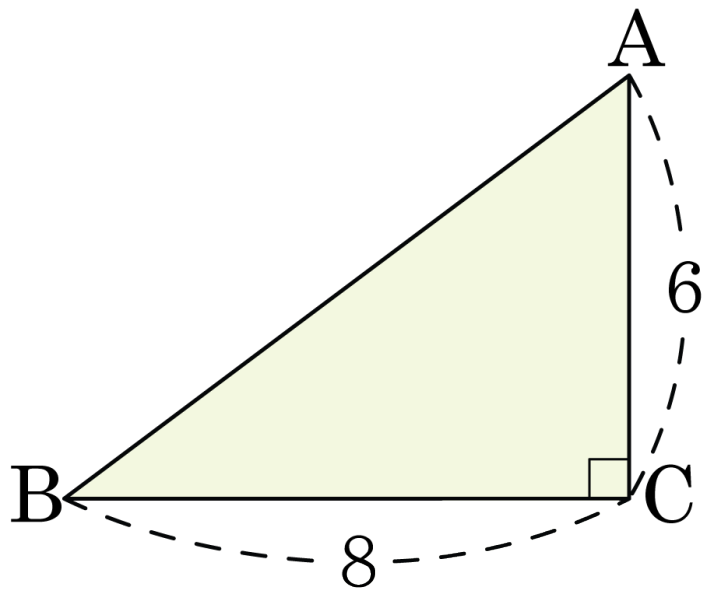
**1.** 다음 그림과 같은 직각삼각형 ABC 에서 $\sin A = \frac{4}{5}$ 이고, $\overline{BC} = 12$ 라고 한다. 직각삼각형 ABC 의 넓이를 구하여라.



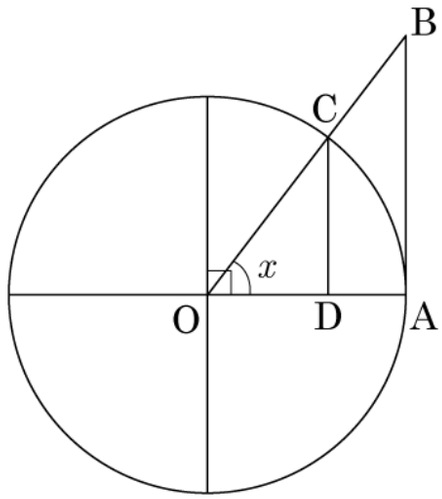

답: _____

**2.** $\angle C = 90^\circ$ 인 $\triangle ABC$ 에서 $\tan B = \frac{6}{8}$ 일 때, $\sin B$ 의 값은?




① $\frac{3}{4}$ ② $\frac{4}{2}$ ③ $\frac{3}{5}$ ④ $\frac{4}{5}$ ⑤ $\frac{5}{4}$

**3.** 다음 그림은 반지름이 1 인 원이다. $\sin x$ 와 $\cos x$ , $\tan x$ 를 나타내는 선분을 보기에서 바르게 찾은 것은?




보기

㉠ $\overline{\mathrm{OA}}$ ㉡ $\overline{\mathrm{OB}}$ ㉢ $\overline{\mathrm{OC}}$ ㉣ $\overline{\mathrm{OD}}$ ㉤ $\overline{\mathrm{AB}}$

㉥ $\overline{\mathrm{AD}}$ ㉦ $\overline{\mathrm{BC}}$ ㉧ $\overline{\mathrm{CD}}$

① $\sin x = \overline{\mathrm{AB}}$ $\cos x = \overline{\mathrm{OD}}$ $\tan x = \overline{\mathrm{OA}}$

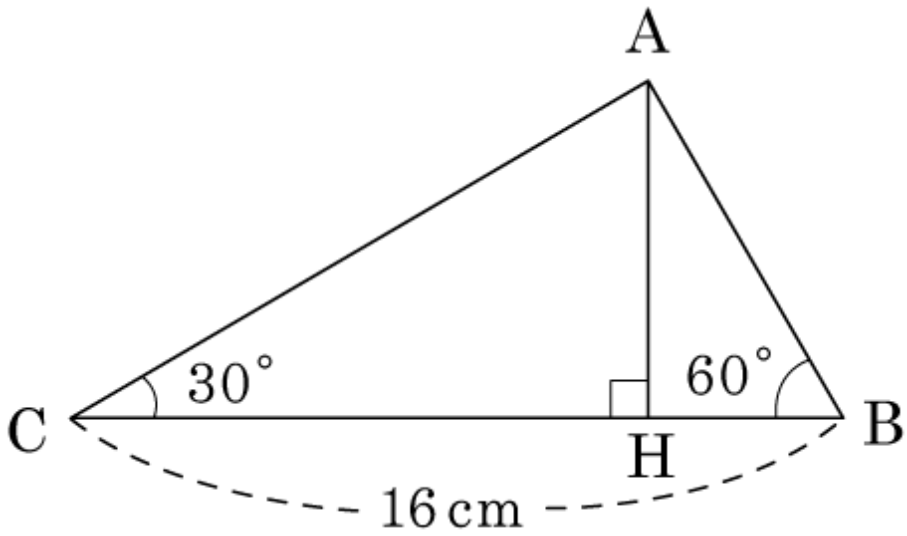
② $\sin x = \overline{\mathrm{AB}}$ $\cos x = \overline{\mathrm{OA}}$ $\tan x = \overline{AB}$

③ $\sin x = \overline{\mathrm{CD}}$ $\cos x = \overline{\mathrm{OD}}$ $\tan x = \overline{AB}$

④ $\sin x = \overline{\mathrm{CD}}$ $\cos x = \overline{\mathrm{OA}}$ $\tan x = \overline{OB}$

⑤ $\sin x = \overline{\mathrm{BC}}$ $\cos x = \overline{\mathrm{OC}}$ $\tan x = \overline{AB}$

**4.** 다음과 같이 $\overline{AH} \perp \overline{BC}$ 인 $\triangle ABC$ 에서 $\overline{BC} = 16\text{cm}$ 일 때, $\overline{AH}$ 의 길이는 ?

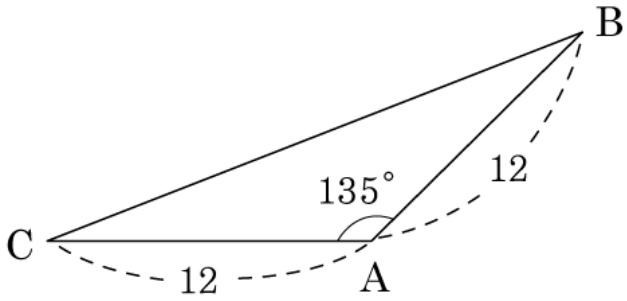



① $3\sqrt{3}\text{cm}$ ② $4\sqrt{3}\text{cm}$ ③ $5\sqrt{3}\text{cm}$

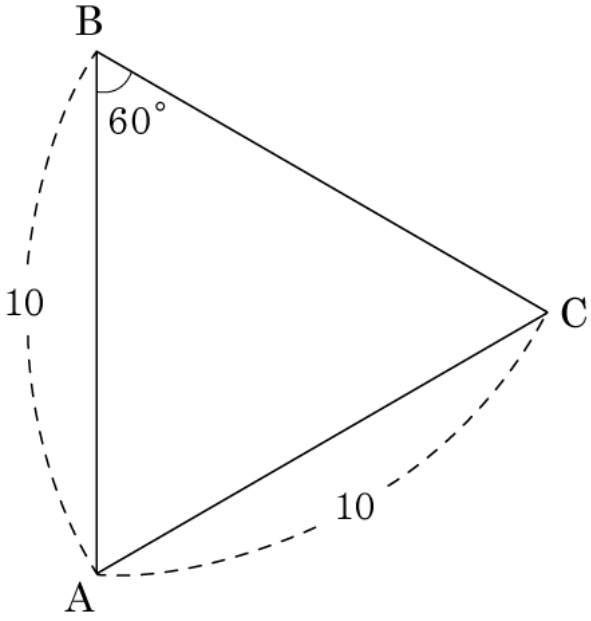
④ $6\sqrt{2}\text{cm}$ ⑤ $6\sqrt{3}\text{cm}$

**5.** 다음 두 삼각형의 넓이로 바르게 짝지어진 것은?.

(1)




(2)




① (1)$34\sqrt{2}$, (2)$26\sqrt{3}$

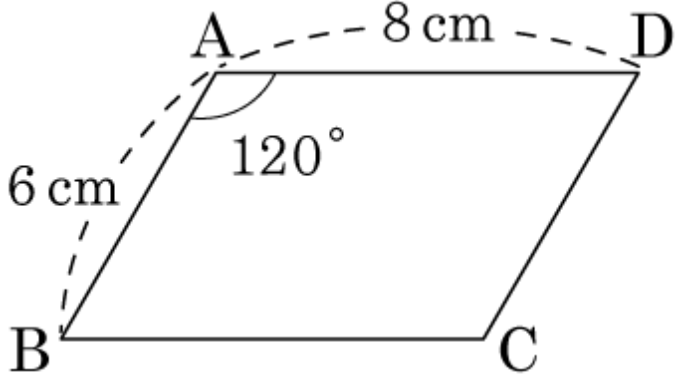
② (1)$35\sqrt{2}$, (2)$26\sqrt{3}$

③ (1)$36\sqrt{2}$, (2)$25\sqrt{3}$

④ (1)$36\sqrt{2}$, (2)$24\sqrt{3}$

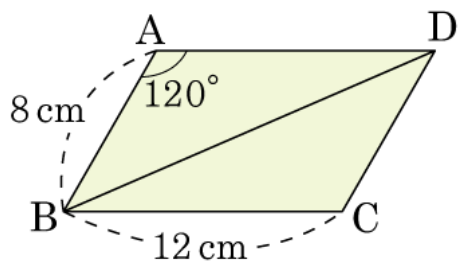
⑤ (1)$37\sqrt{2}$, (2)$26\sqrt{3}$

**6.** 다음 그림과 같은 평행사변형 ABCD 에서 대각선 BD 의 길이를 구하여라.



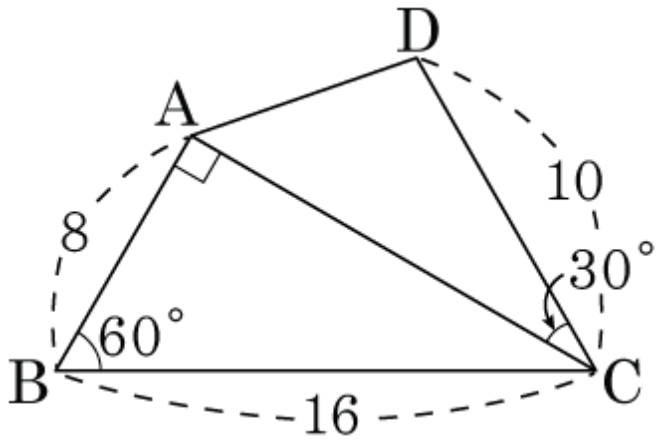

답: _____ cm

**7.** 다음 그림과 같은 평행사변형에서 $\angle A = 120^\circ$ 일 때, 대각선 $\overline{BD}$ 의 길이의 제곱의 값을 구하면?



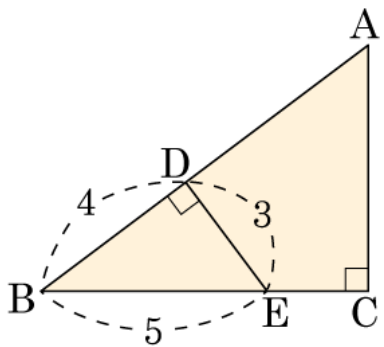

① 108 ② 144 ③ 196 ④ 304 ⑤ 340

**8.** 다음 그림과 같은 □ABCD의 넓이를 구하여라.




답 : _____

**9.** 다음 그림에서 $10(\sin A + \cos A)$ 의 값은??




① 14 ② 16 ③ 17 ④ 18 ⑤ 19

**10.** $\tan x = 2\sqrt{3}\cos x$ 일 때, $\sin x$ 의 값을 구하여라. (단, $0° < x < 90°$)

① $\frac{\sqrt{2}}{2}$ ② $\sqrt{2}$ ③ $\frac{\sqrt{3}}{2}$ ④ $\frac{\sqrt{3}}{3}$ ⑤ $\frac{2\sqrt{3}}{3}$