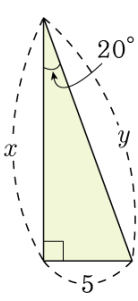


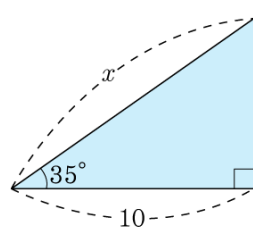
1. 다음 직각삼각형에서 x, y 의 값을 주어진 각과 변을 이용하여 삼각비로 나타낸 것은?

- ① $x = 5 \sin 20^\circ, y = \frac{5}{\sin 20^\circ}$
- ② $x = \frac{5}{\tan 20^\circ}, y = 5 \sin 20^\circ$
- ③ $x = \frac{5}{\tan 20^\circ}, y = \frac{5}{\cos 20^\circ}$
- ④ $x = \frac{5}{\cos 20^\circ}, y = \frac{5}{\sin 20^\circ}$
- ⑤ $x = \frac{5}{\tan 20^\circ}, y = \frac{5}{\sin 20^\circ}$



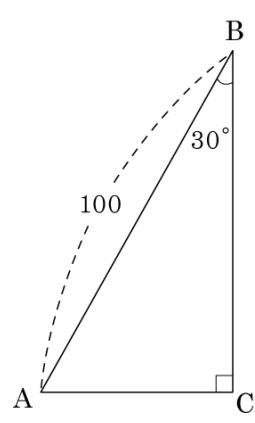
2. 다음 그림과 같이 직각삼각형에서 x 의 길이를 구하는 식은?

- ① $x = \frac{10}{\cos 35^\circ}$
② $x = 10 \tan 35^\circ$
③ $x = \frac{10}{\sin 35^\circ}$
④ $x = 10 \sin 35^\circ$
⑤ $x = 10 \cos 35^\circ$



3. 다음과 같은 직각삼각형 ABC 에서 $\overline{AC}$ 의 길이는?

- ① 40 ② 50 ③ 60
 ④ 70 ⑤ 80



4. 다음은 둔각삼각형에서 두 변의 길이와 그 끼인 각의 크기가 주어질 때, 그 삼각형의 넓이를 구하는 과정이다. □ 안에 알맞은 것은?

$\triangle ABC$ 에서 $\angle ABH = 180^\circ - \angle B$
 $\sin(180^\circ - \angle B) = \frac{\square}{\square}$ 이므로 $h = \square \times \square$
 $\therefore \triangle ABC = \frac{1}{2}ah = \frac{1}{2}ac \sin(180^\circ - \angle B)$

- ① $\frac{h}{a}, a, \tan(180^\circ - \angle B)$

③ $\frac{h}{c}, c, \cos(180^\circ - \angle B)$

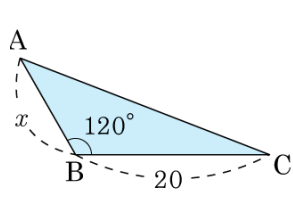
⑤ $\frac{h}{c}, c, \sin(180^\circ - \angle B)$

② $\frac{c}{a}, a, \sin(180^\circ - \angle B)$

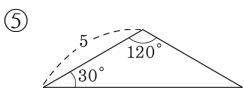
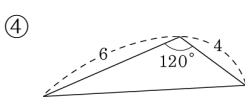
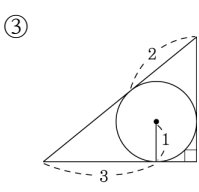
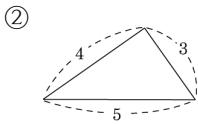
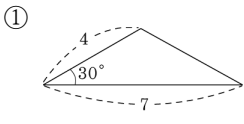
④ $\frac{c}{h}, c, \sin(180^\circ - \angle B)$

5. 다음 그림에서 $\overline{BC} = 20$, $\angle B = 120^\circ$ 이고 $\triangle ABC$ 의 넓이가 $40\sqrt{3}$ 일 때, $\overline{AB}$ 의 길이를 구하면?

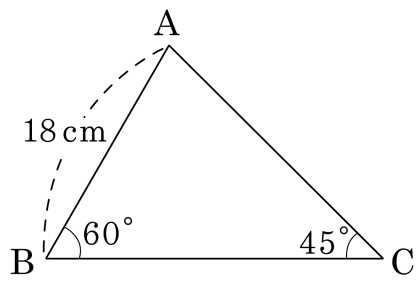
- ① 8 ② 11 ③ 12
 ④ 13 ⑤ 14



6. 다음 삼각형 중에서 넓이가 두 번째로 큰 것을 골라라. (단, $\sqrt{3} = 1.732$ 로 계산한다.)

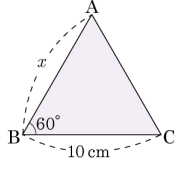


7. 다음 삼각형의 넓이를 구하면?



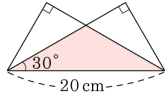
- ① $\frac{81\sqrt{2} + 240}{2}$ ② $\frac{81\sqrt{2} + 243}{2}$ ③ $\frac{81\sqrt{3} + 240}{2}$
 ④ $\frac{81\sqrt{3} + 243}{2}$ ⑤ $\frac{81\sqrt{6} + 243}{2}$

8. 다음 그림에서 $\triangle ABC$ 의 넓이가 $50\sqrt{3}\text{cm}^2$ 일 때, x 의 값은?



- ① 20cm ② 21cm ③ 22cm ④ 23cm ⑤ 24cm

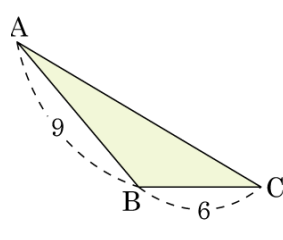
9. 다음 그림과 같이 합동인 두 직각삼각형의 빗변을 겹쳐 놓았을 때, 겹쳐진 부분의 넓이를 구하면?



- ① $\frac{100}{3} \text{ cm}^2$ ② $\frac{100\sqrt{2}}{3} \text{ cm}^2$ ③ $\frac{100\sqrt{3}}{3} \text{ cm}^2$
 ④ $\frac{100\sqrt{5}}{3} \text{ cm}^2$ ⑤ $\frac{100\sqrt{6}}{3} \text{ cm}^2$

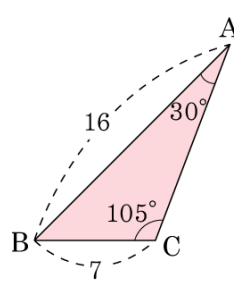
10. 다음 그림에서 $\overline{AB} = 9, \overline{BC} = 6$, $\angle A + \angle C = 45^\circ$ 일 때, $\triangle ABC$ 의 넓이는?

- ① $\frac{27\sqrt{3}}{2}$ ② $\frac{27}{2}$
 ③ $\frac{27\sqrt{2}}{2}$ ④ $\frac{3\sqrt{3} + \sqrt{2}}{2}$
 ⑤ $\frac{27\sqrt{2} + 5}{2}$

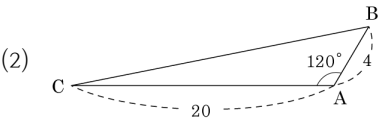
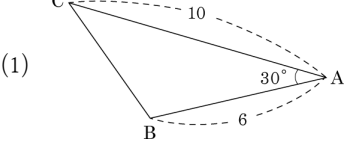


11. 다음 삼각형의 넓이를 $a\sqrt{b}$ 꼴로 나타낼 때,
 $a \div b$ 의 값은?

- ① 10 ② 14 ③ 20
 ④ 26 ⑤ 30



12. 다음 그림을 보고 두 삼각형 ABC의 넓이는?



- ① (1)12(2)18 $\sqrt{3}$ ② (1)12(2)20 $\sqrt{3}$ ③ (1)14(2)18 $\sqrt{3}$
④ (1)14(2)20 $\sqrt{3}$ ⑤ (1)15(2)20 $\sqrt{3}$