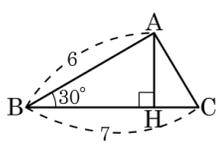


1. 다음 $\triangle ABC$ 에 대하여 다음을 구하여라.



- (1) \overline{AH} 의 길이
(2) $\triangle ABC$ 의 넓이

▶ 답:

▶ 답:

▷ 정답: (1) 3

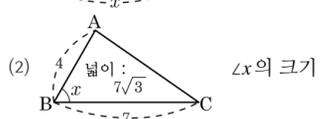
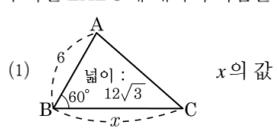
▷ 정답: (2) $\frac{21}{2}$

해설

$$(1) \overline{AH} = 6 \sin 30^\circ = 6 \times \frac{1}{2} = 3$$

$$(2) \triangle ABC = \frac{1}{2} \times \overline{BC} \times \overline{AH} = \frac{1}{2} \times 7 \times 3 = \frac{21}{2}$$

2. 주어진 $\triangle ABC$ 에 대하여 다음을 구하여라.



▶ 답:

▶ 답:

▷ 정답: (1) 8

▷ 정답: (2) 60°

해설

$$(1) \frac{1}{2} \times 6 \times x \times \sin 60^\circ = 12\sqrt{3}$$

$$3x \times \frac{\sqrt{3}}{2} = 12\sqrt{3}$$

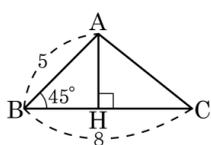
$$\therefore x = 8$$

$$(2) \frac{1}{2} \times 7 \times 4 \times \sin x = 7\sqrt{3}$$

$$\sin x = \frac{\sqrt{3}}{2}$$

$$\therefore \angle x = 60^\circ$$

3. 다음 $\triangle ABC$ 에 대하여 다음을 구하여라.



- (1) \overline{AH} 의 길이
(2) $\triangle ABC$ 의 넓이

▶ 답:

▶ 답:

▷ 정답: (1) $\frac{5\sqrt{2}}{2}$

▷ 정답: (2) $10\sqrt{2}$

해설

$$(1) \overline{AH} = 5 \sin 45^\circ = 5 \times \frac{\sqrt{2}}{2} = \frac{5\sqrt{2}}{2}$$

$$(2) \triangle ABC = \frac{1}{2} \times \overline{BC} \times \overline{AH} = \frac{1}{2} \times 8 \times \frac{5\sqrt{2}}{2} = 10\sqrt{2}$$