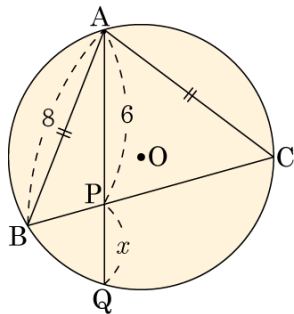


1. $\overline{AB} = \overline{AC} = 8$, $\overline{AP} = 6$ 일 때, $\overline{PQ}$ 의 길이는?



① 10

② $\frac{10}{3}$

③ $\frac{12}{5}$

④ $\frac{14}{3}$

⑤ 15

해설

보조선 $\overline{BQ}$ 를 그으면,

$$\angle AQB = \angle ACB (\because \text{원주각})$$

$$\angle ABC = \angle ACB (\because \text{이등변삼각형})$$

$$\therefore \angle AQB = \angle ABC$$

점 B, P, Q 는 한 원 위에 있고, $\overleftrightarrow{AB}$ 는 접선, $\overleftrightarrow{AQ}$ 는 할선이다.

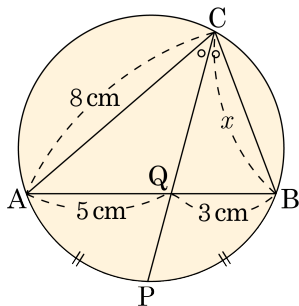
$$\overline{AB}^2 = \overline{AP} \times \overline{AQ}$$

$$8^2 = 6\overline{AQ}$$

$$\overline{AQ} = \frac{32}{3}$$

$$\therefore \overline{PQ} = \overline{AQ} - \overline{AP} = \frac{32}{3} - 6 = \frac{14}{3}$$

2. 다음 그림에서 $5.0\text{pt}\widehat{AP} = 5.0\text{pt}\widehat{BP}$ 일 때, $\overline{CB}$ 의 길이를 구하면? ($\overline{AC} = 8\text{cm}$, $\overline{AQ} = 5\text{cm}$, $\overline{BQ} = 3\text{cm}$)



① $\frac{22}{5}\text{cm}$

② $\frac{23}{5}\text{cm}$

③ $\frac{24}{5}\text{cm}$

④ 5cm

⑤ $\frac{26}{5}\text{cm}$

해설

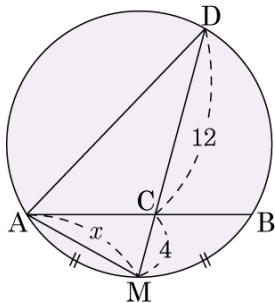
$$\overline{AC} : \overline{BC} = \overline{AQ} : \overline{BQ}$$

$$8 : x = 5 : 3$$

$$5x = 24$$

$$\therefore x = \frac{24}{5}\text{cm}$$

3. 다음 그림에서 x 의 값을 구하여라.



▶ 답 :

▶ 정답 : 8

해설

$$\overline{AM}^2 = \overline{MC} \times \overline{MD} \text{ 이므로}$$

$$x^2 = 4 \times 16 = 64, \therefore x = 8 \ (x > 0) \text{ 이다.}$$