

三平方の定理と円1

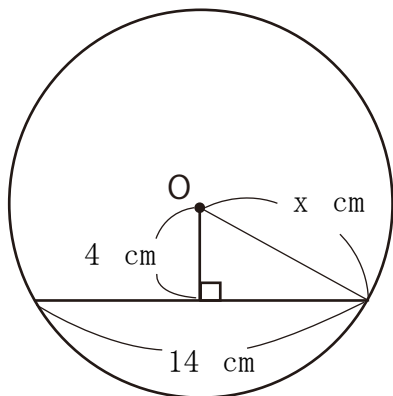
NO 1

名前

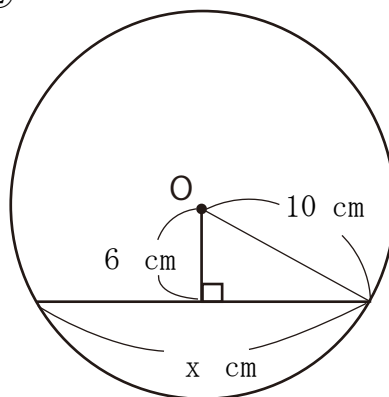
5 点

1 次の図で、 x の値を求めなさい。

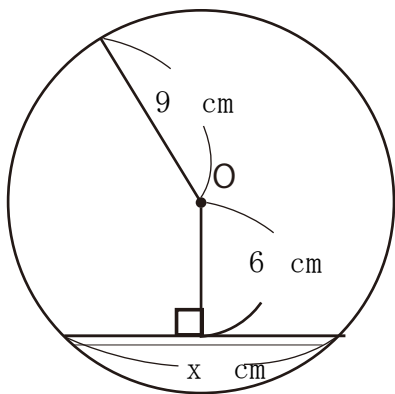
①



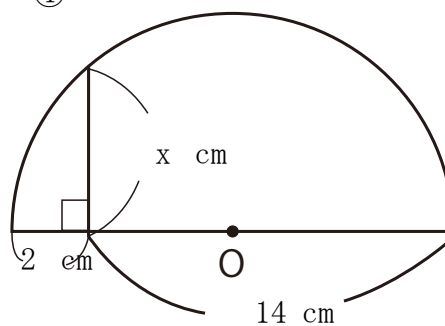
②



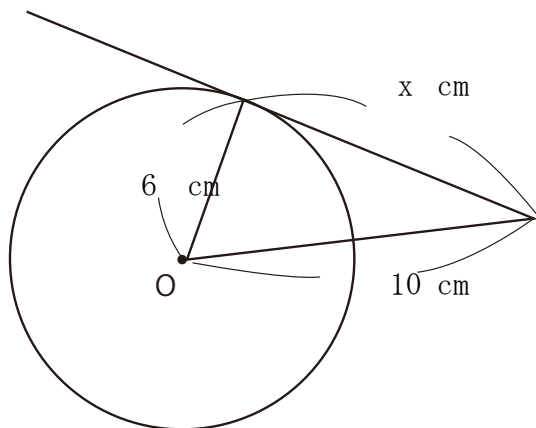
③



④



⑤

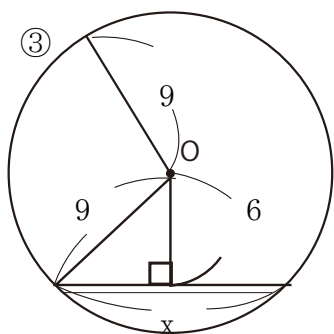


解答

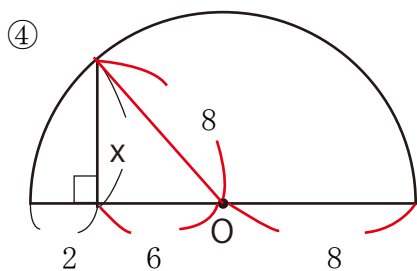
1

$$\begin{aligned} \text{①} \quad x^2 &= 4^2 + 7^2 \\ &= 65 \quad x = \sqrt{65} \text{ cm} \end{aligned}$$

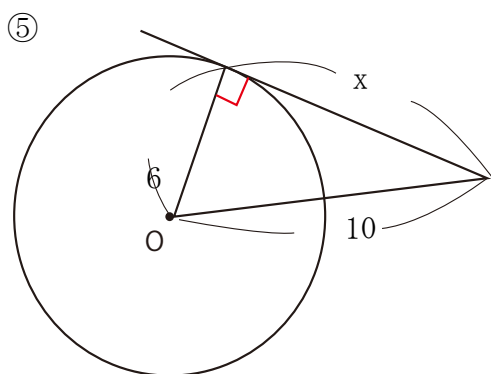
$$\begin{aligned} \text{②} \quad \left(\frac{x}{2}\right)^2 &= 10^2 - 6^2 = 64 \\ \left(\frac{x}{2}\right) &= 8 \quad x = 16 \text{ cm} \end{aligned}$$



$$\begin{aligned} \left(\frac{x}{2}\right)^2 &= 9^2 - 6^2 = 45 \\ \left(\frac{x}{2}\right) &= \sqrt{45} \\ &= 3\sqrt{5} \\ x &= 6\sqrt{5} \text{ cm} \end{aligned}$$



$$\begin{aligned} x^2 &= 8^2 - 6^2 = 28 \\ x &= 2\sqrt{7} \text{ cm} \end{aligned}$$



$$\begin{aligned} x^2 &= 10^2 - 6^2 = 64 \\ x &= 8 \text{ cm} \end{aligned}$$