

三平方の定理と円1

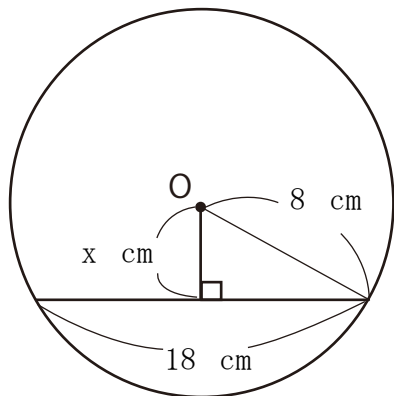
NO 2

名前

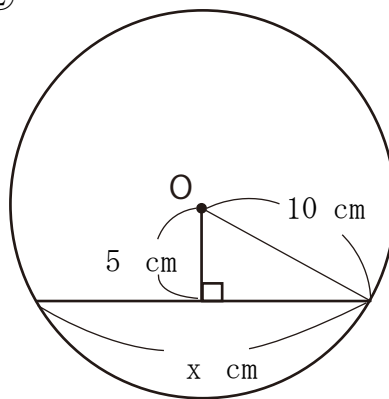
／5 点

1 次の図で、 x の値を求めなさい。

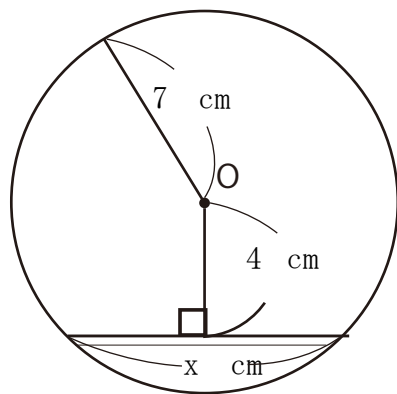
①



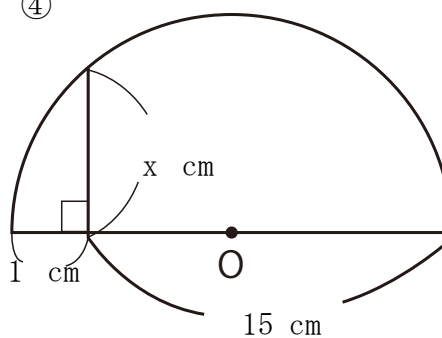
②



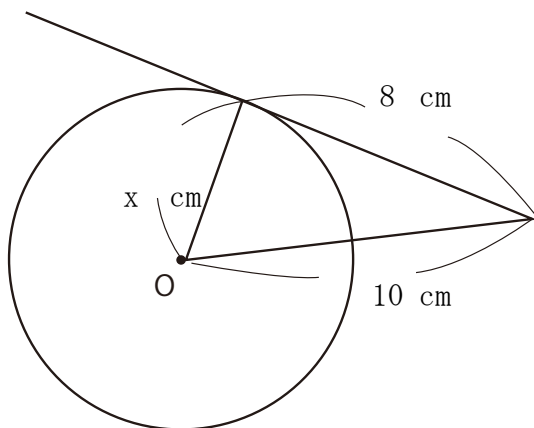
③



④



⑤

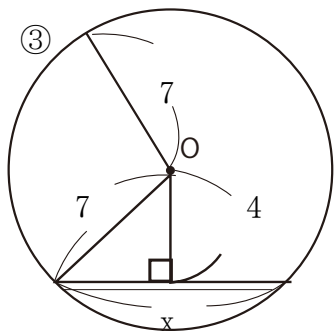


解答

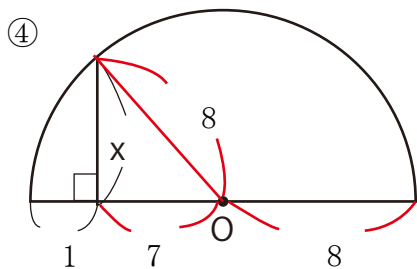
1

$$\begin{aligned} \text{①} \quad x^2 &= 8^2 + 9^2 \\ &= 145 \quad x = \sqrt{145} \text{ cm} \end{aligned}$$

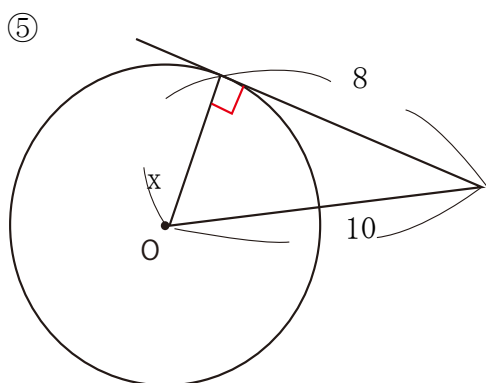
$$\begin{aligned} \text{②} \quad \left(\frac{x}{2}\right)^2 &= 10^2 - 5^2 = 75 \\ \left(\frac{x}{2}\right) &= 5\sqrt{3} \quad x = 10\sqrt{3} \text{ cm} \end{aligned}$$



$$\begin{aligned} \left(\frac{x}{2}\right)^2 &= 7^2 - 4^2 = 33 \\ \left(\frac{x}{2}\right) &= \sqrt{33} \\ x &= 2\sqrt{33} \text{ cm} \end{aligned}$$



$$\begin{aligned} x^2 &= 8^2 - 7^2 = 15 \\ x &= \sqrt{15} \text{ cm} \end{aligned}$$



$$\begin{aligned} x^2 &= 10^2 - 8^2 = 36 \\ x &= 6 \text{ cm} \end{aligned}$$