

三平方の定理の基本

NO 1

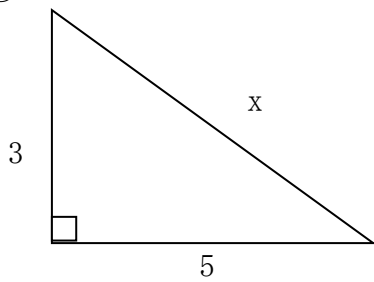
名前

6 点

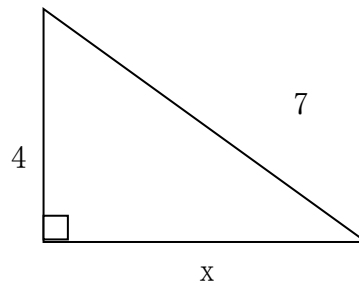


下の図の直角三角形で、 x を求めなさい。

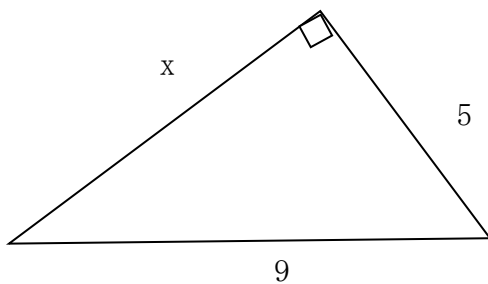
①



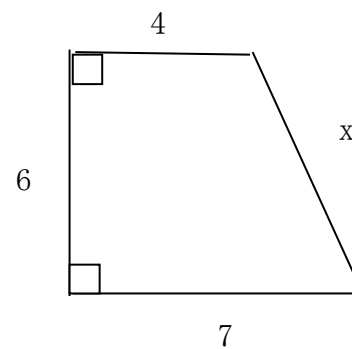
②



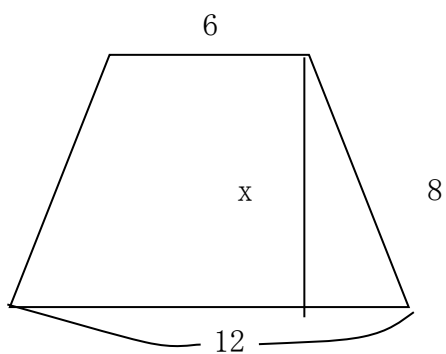
③



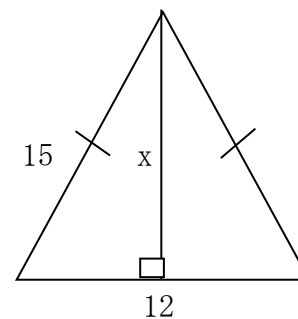
④



⑤



⑥



解答

$$\begin{aligned} \textcircled{1} \quad x^2 &= 3^2 + 5^2 \\ x^2 &= 34 \end{aligned}$$

xは正の数だから、

$$x = \sqrt{34}$$

$$\begin{aligned} \textcircled{2} \quad 7^2 &= 4^2 + x^2 \\ x^2 &= 33 \end{aligned}$$

xは正の数だから、

$$x = \sqrt{33}$$

$$\begin{aligned} \textcircled{3} \quad 9^2 &= 5^2 + x^2 \\ x^2 &= 56 \end{aligned}$$

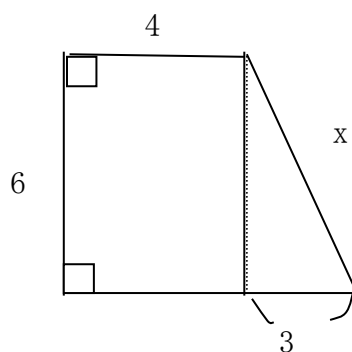
xは正の数だから、

$$\begin{aligned} x &= \sqrt{56} \\ &= 2\sqrt{14} \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad x^2 &= 6^2 + 3^2 \\ x^2 &= 45 \end{aligned}$$

xは正の数だから、

$$\begin{aligned} x &= \sqrt{45} \\ &= 3\sqrt{5} \end{aligned}$$



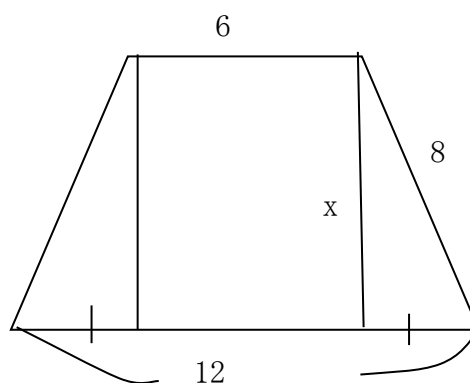
$$\textcircled{5} \quad (12 - 6) \div 2 = 3$$

$$8^2 = 3^2 + x^2$$

$$x^2 = 55$$

xは正の数だから、

$$x = \sqrt{55}$$



$$\textcircled{6} \quad 15^2 = 6^2 + x^2$$

$$x^2 = 189$$

xは正の数だから、

$$\begin{aligned} x &= \sqrt{189} \\ &= 3\sqrt{21} \end{aligned}$$