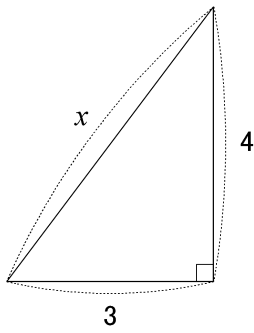


三平方の定理

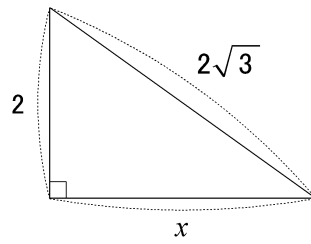
例題 x の長さを求めよ。

(1)



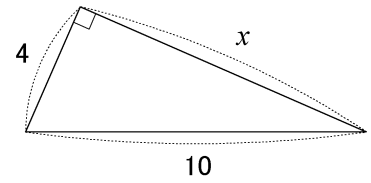
答

(2)



答

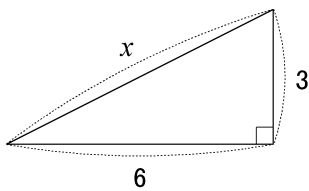
(3)



答

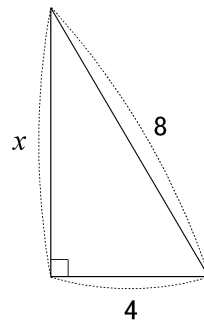
練習 x の長さを求めよ。

(1)



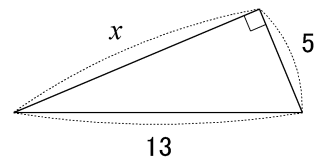
答

(2)



答

(3)

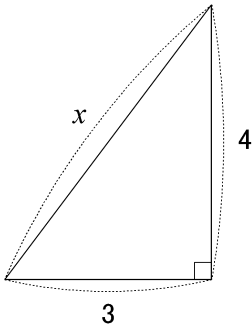


答

三平方の定理

例題 x の長さを求めよ。

(1)

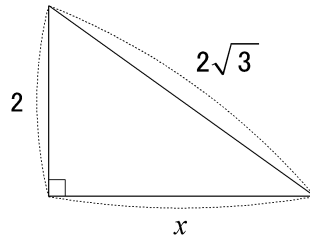


★

$$\begin{aligned} x^2 &= 3^2 + 4^2 \\ &= 9 + 16 \\ &= 25 \\ x &= \pm 5 \\ x > 0 \text{ より, } x &= 5 \end{aligned}$$

答 5

(2)

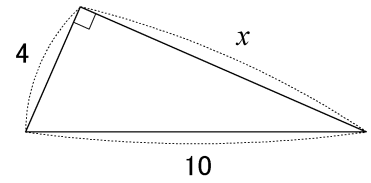


★

$$\begin{aligned} (2\sqrt{3})^2 &= 2^2 + x^2 \\ 12 &= 4 + x^2 \\ x^2 &= 8 \\ x &= \pm 2\sqrt{2} \\ x > 0 \text{ より, } x &= 2\sqrt{2} \end{aligned}$$

答 $2\sqrt{2}$

(3)



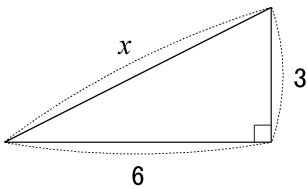
★

$$\begin{aligned} 10^2 &= 4^2 + x^2 \\ 100 &= 16 + x^2 \\ x^2 &= 84 \\ x &= \pm 2\sqrt{21} \\ x > 0 \text{ より, } x &= 2\sqrt{21} \end{aligned}$$

答 $2\sqrt{21}$

練習 x の長さを求めよ。

(1)

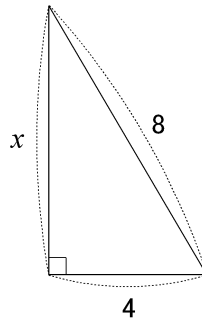


★

$$\begin{aligned} x^2 &= 3^2 + 6^2 \\ &= 9 + 36 \\ &= 45 \\ x &= \pm 3\sqrt{5} \\ x > 0 \text{ より, } x &= 3\sqrt{5} \end{aligned}$$

答 $3\sqrt{5}$

(2)

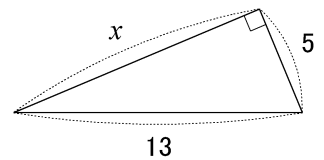


★

$$\begin{aligned} 8^2 &= 4^2 + x^2 \\ 64 &= 16 + x^2 \\ x^2 &= 48 \\ x &= \pm 4\sqrt{3} \\ x > 0 \text{ より, } x &= 4\sqrt{3} \end{aligned}$$

答 $4\sqrt{3}$

(3)



★

$$\begin{aligned} 13^2 &= x^2 + 5^2 \\ 169 &= x^2 + 25 \\ x^2 &= 144 \\ x &= \pm 12 \\ x > 0 \text{ より, } x &= 12 \end{aligned}$$

答 12