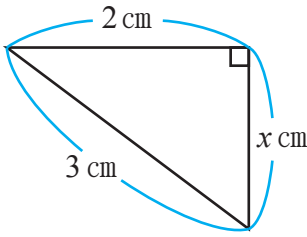


三平方の定理(2)

【1】下の図の x の値を求めなさい。

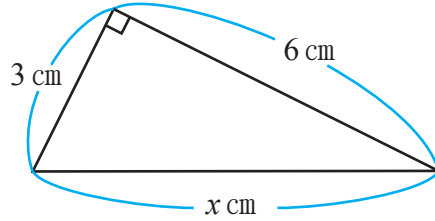
(1)



$$\begin{aligned} x^2 + 2^2 &= 3^2 \\ x^2 &= 5 \\ x > 0 \text{ だから,} \\ x &= \sqrt{5} \end{aligned}$$

答え $x = \sqrt{5}$

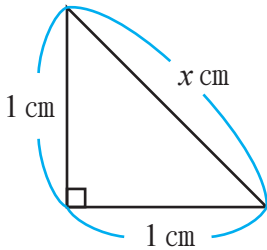
(2)



$$\begin{aligned} 3^2 + 6^2 &= x^2 \\ x^2 &= 45 \\ x > 0 \text{ だから,} \\ x &= 3\sqrt{5} \end{aligned}$$

答え $x = 3\sqrt{5}$

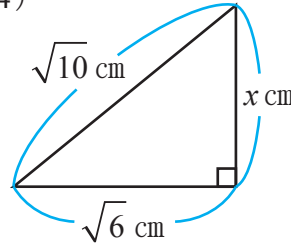
(3)



$$\begin{aligned} 1^2 + 1^2 &= x^2 \\ x^2 &= 2 \\ x > 0 \text{ だから,} \\ x &= \sqrt{2} \end{aligned}$$

答え $x = \sqrt{2}$

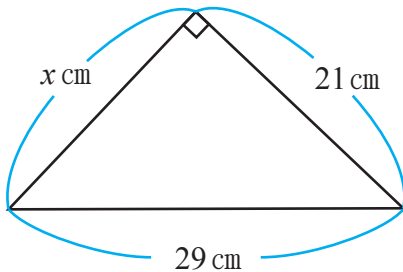
(4)



$$\begin{aligned} x^2 + (\sqrt{6})^2 &= (\sqrt{10})^2 \\ x^2 &= 4 \\ x > 0 \text{ だから, } x &= 2 \end{aligned}$$

答え $x = 2$

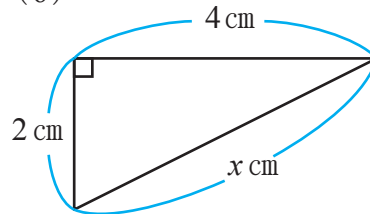
(5)



$$\begin{aligned} x^2 + 21^2 &= 29^2 \\ x^2 &= 400 \\ x > 0 \text{ だから,} \\ x &= 20 \end{aligned}$$

答え $x = 20$

(6)



$$\begin{aligned} 2^2 + 4^2 &= x^2 \\ x^2 &= 20 \\ x > 0 \text{ だから,} \\ x &= 2\sqrt{5} \end{aligned}$$

答え $x = 2\sqrt{5}$

【2】直角三角形の直角をはさむ2辺の長さを a, b , 斜辺の長さを c とする。

下の表の空らんにあてはまる数を書き入れなさい。

	a	b	c
(1)	2	$\sqrt{2}$	$\sqrt{6}$
(2)	3	3	$3\sqrt{2}$
(3)	$2\sqrt{6}$	1	5
(4)	12	16	20

$$\begin{aligned} (1) \quad 2^2 + b^2 &= (\sqrt{6})^2 \\ b^2 &= 2 \\ b > 0 \text{ だから,} \\ b &= \sqrt{2} \end{aligned}$$

$$\begin{aligned} (3) \quad (2\sqrt{6})^2 + b^2 &= 5^2 \\ b^2 &= 1 \\ b > 0 \text{ だから,} \\ b &= 1 \end{aligned}$$

$$\begin{aligned} (2) \quad 3^2 + 3^2 &= c^2 \\ c^2 &= 18 \\ c > 0 \text{ だから,} \\ c &= 3\sqrt{2} \end{aligned}$$

$$\begin{aligned} (4) \quad a^2 + 16^2 &= 20^2 \\ a^2 &= 144 \\ a > 0 \text{ だから,} \\ a &= 12 \end{aligned}$$

