

解答

1. 三平方の定理 3

問 1 (1) $h = 5^2 - x^2$, $h = 14^2 - (15 - x)^2$

(2) $x = \frac{9}{5}$

(3) $h = \frac{4\sqrt{34}}{5}$

(4) $S = 6\sqrt{34}$

問 2 $S = 10\sqrt{2}$

3. 三平方の定理 3

問 1 (1) $h = 4^2 - x^2$, $h = 10^2 - (12 - x)^2$

(2) $x = \frac{5}{2}$

(3) $h = \frac{\sqrt{39}}{2}$

(4) $S = 3\sqrt{39}$

問 2 $S = 6\sqrt{6}$

5. 三平方の定理 3

問 1 (1) $h = 7^2 - x^2$, $h = 13^2 - (18 - x)^2$

(2) $x = \frac{17}{3}$

(3) $h = \frac{2\sqrt{38}}{3}$

(4) $S = 6\sqrt{38}$

問 2 $S = \frac{27\sqrt{15}}{4}$

7. 三平方の定理 3

問 1 (1) $h = 4^2 - x^2$, $h = 13^2 - (15 - x)^2$

(2) $x = \frac{12}{5}$

(3) $h = \frac{16}{5}$

(4) $S = 24$

問 2 $S = 6\sqrt{39}$

2. 三平方の定理 3

問 1 (1) $h = 2^2 - x^2$, $h = 5^2 - (6 - x)^2$

(2) $x = \frac{5}{4}$

(3) $h = \frac{\sqrt{39}}{4}$

(4) $S = \frac{3\sqrt{39}}{4}$

問 2 $S = 20\sqrt{2}$

4. 三平方の定理 3

問 1 (1) $h = 9^2 - x^2$, $h = 11^2 - (16 - x)^2$

(2) $x = \frac{27}{4}$

(3) $h = \frac{9\sqrt{7}}{4}$

(4) $S = 18\sqrt{7}$

問 2 $S = 10\sqrt{6}$

6. 三平方の定理 3

問 1 (1) $h = 5^2 - x^2$, $h = 12^2 - (14 - x)^2$

(2) $x = \frac{11}{4}$

(3) $h = \frac{3\sqrt{31}}{4}$

(4) $S = \frac{21\sqrt{31}}{4}$

問 2 $S = \frac{27\sqrt{39}}{4}$

8. 三平方の定理 3

問 1 (1) $h = 4^2 - x^2$, $h = 7^2 - (9 - x)^2$

(2) $x = \frac{8}{3}$

(3) $h = \frac{4\sqrt{5}}{3}$

(4) $S = 6\sqrt{5}$

問 2 $S = \frac{45\sqrt{39}}{4}$