



1. $R = P + Q = 64 + 36 = 100$

2.

(1) $3^2 + 4^2 = x^2$

$$9 + 16 = x^2$$

$$x^2 = 25 \quad x = 5$$

(2) $3^2 + y^2 = 4^2$

$$9 + y^2 = 16$$

$$y^2 = 7$$

$$y = \sqrt{7}$$

3.

(1) $4^2 + 5^2 = 6^2$

$$16 + 25 = 41 \quad \times$$

(2) $1^2 + (\sqrt{3})^2 = 2^2$

$$1 + 3 = 4 \quad \circ$$

4.

$$6^2 + h^2 = 12^2$$

$$36 + h^2 = 144$$

$$h^2 = 144 - 36 = 108$$

$$h = 6\sqrt{3} \text{ cm}$$

$$S = \frac{1}{2} \times 12 \times 6\sqrt{3} = 36\sqrt{3} \text{ cm}^2$$

5.

$$4^2 + 8^2 = AB^2$$

$$16 + 64 = AB^2$$

$$AB^2 = 80$$

$$AB = 4\sqrt{5}$$

6.

$$\sqrt{2^2 + 3^2 + 4^2} = \sqrt{4 + 9 + 16} = \sqrt{29} \text{ cm}$$