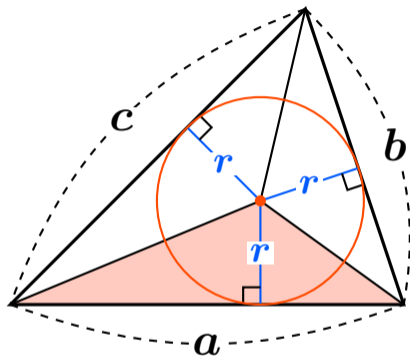
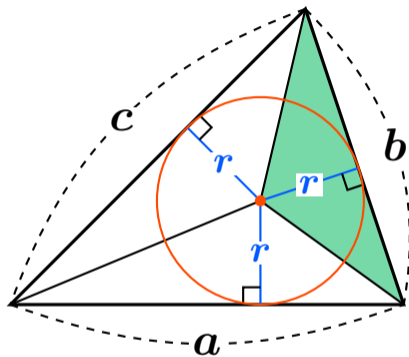


内接円の半径 r と三角形の面積



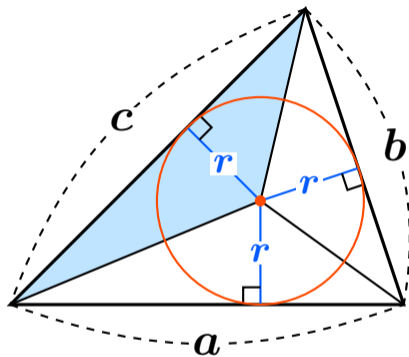
$$\begin{aligned}\text{面積} &= \text{底辺} \times \text{高さ} \div 2 \\ &= a \times r \div 2 \\ &= \frac{ar}{2}\end{aligned}$$

内接円の半径 r と三角形の面積



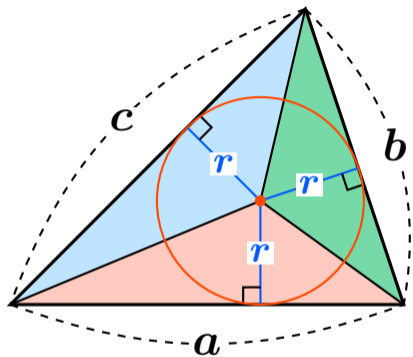
$$\begin{aligned}\text{面積} &= \text{底辺} \times \text{高さ} \div 2 \\ &= b \times r \div 2 \\ &= \frac{br}{2}\end{aligned}$$

内接円の半径 r と三角形の面積



$$\begin{aligned}\text{面積} &= \text{底辺} \times \text{高さ} \div 2 \\ &= c \times r \div 2 \\ &= \frac{cr}{2}\end{aligned}$$

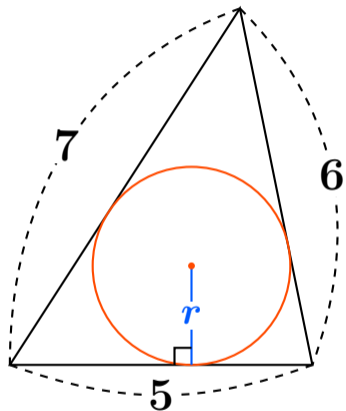
内接円の半径 r と三角形の面積



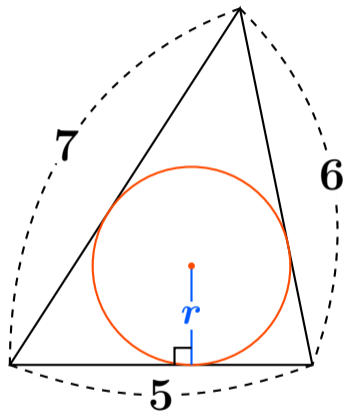
三角形の面積

$$\begin{aligned} &= \frac{ar}{2} + \frac{br}{2} + \frac{cr}{2} \\ &= \frac{r}{2}(a + b + c) \end{aligned}$$

三辺の長さが 5, 6, 7 で面積 $6\sqrt{6}$ のとき内接円の半径 r ?

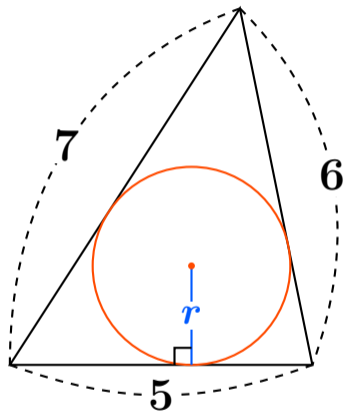


三辺の長さが 5, 6, 7 で面積 $6\sqrt{6}$ のとき内接円の半径 r ?



$$\text{面積} = \frac{r}{2}(a + b + c)$$

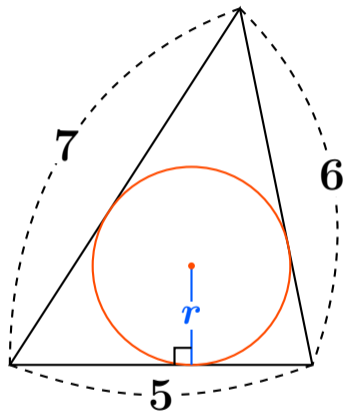
三辺の長さが 5, 6, 7 で面積 $6\sqrt{6}$ のとき内接円の半径 r ?



$$\text{面積} = \frac{r}{2}(a + b + c)$$

$$6\sqrt{6} = \frac{r}{2}(5 + 6 + 7)$$

三辺の長さが 5, 6, 7 で面積 $6\sqrt{6}$ のとき内接円の半径 r ?



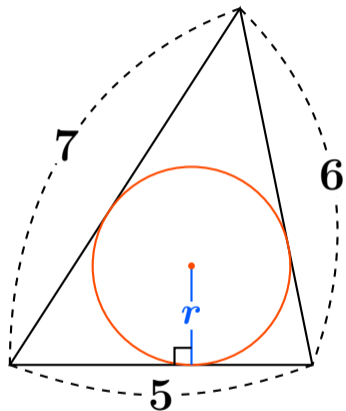
$$\text{面積} = \frac{r}{2}(a + b + c)$$

$$6\sqrt{6} = \frac{r}{2}(5 + 6 + 7)$$

$$6\sqrt{6} = 9r$$

$$\frac{6\sqrt{6}}{9} = r$$

三辺の長さが 5, 6, 7 で面積 $6\sqrt{6}$ のとき内接円の半径 r ?



$$\text{面積} = \frac{r}{2}(a + b + c)$$

$$6\sqrt{6} = \frac{r}{2}(5 + 6 + 7)$$

$$6\sqrt{6} = 9r$$

$$\frac{6\sqrt{6}}{9} = r \quad r = \frac{2\sqrt{6}}{3} \quad \boxed{\text{答}}$$