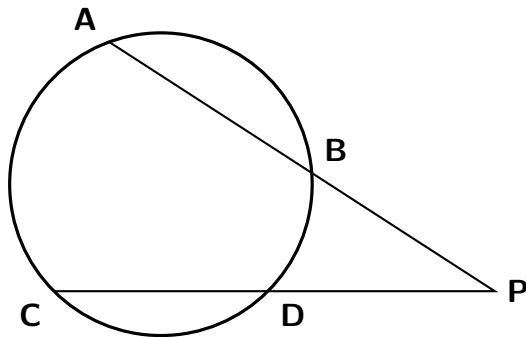
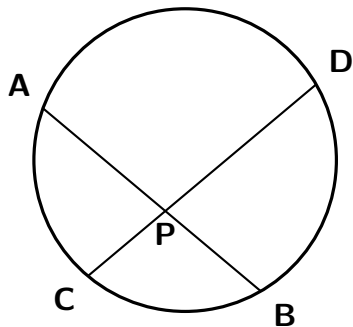
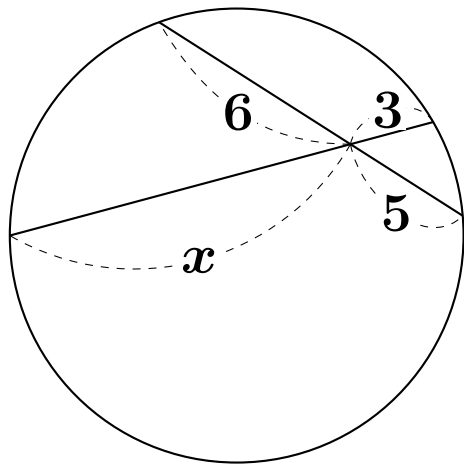


方べきの定理

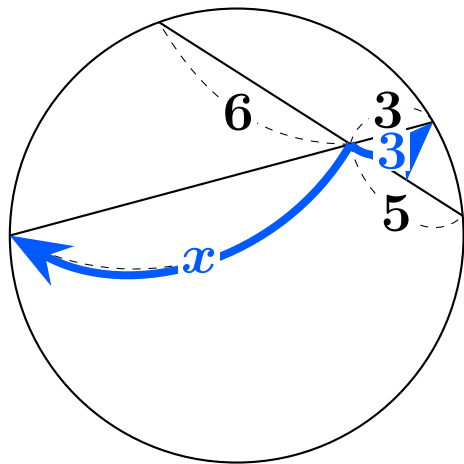
以下の図のとき $PA \times PB = PC \times PD$



方べきの定理 #29 $\square 1$ (1)



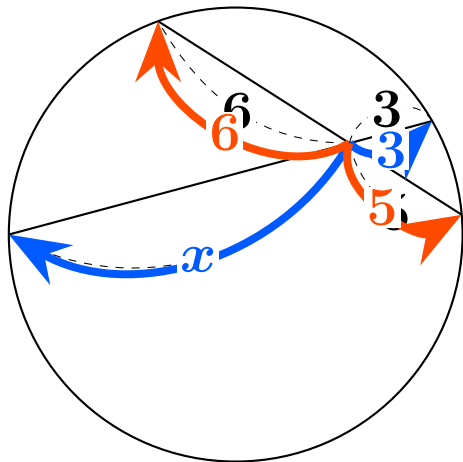
方べきの定理 #29 $\square 1$ (1)



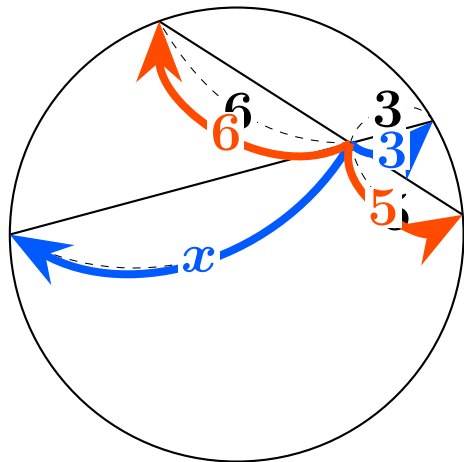
$$3 \times x$$

方べきの定理 #29 $\square 1$ (1)

$$3 \times x = 6 \times 5$$



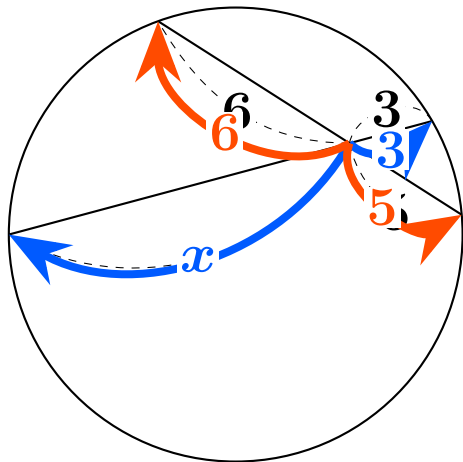
方べきの定理 #29 1 (1)



$$3 \times x = 6 \times 5$$

$$3x = 6 \times 5$$

方べきの定理 #29 1 (1)

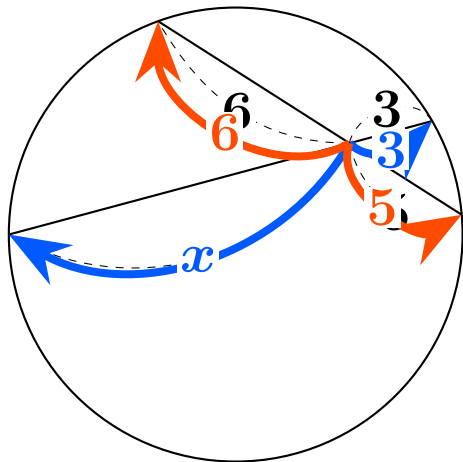


$$3 \times x = 6 \times 5$$

$$3x = 6 \times 5$$

$$\frac{3x}{3} = \frac{6 \times 5}{3}$$

方べきの定理 #29 1 (1)



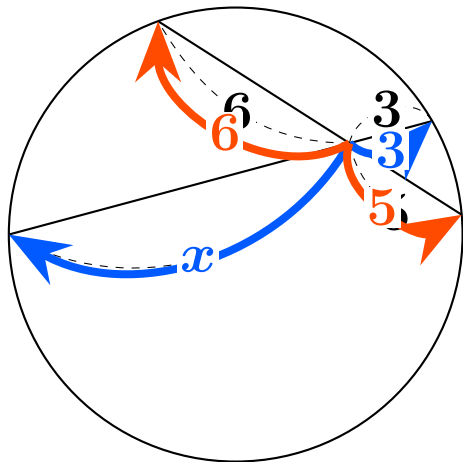
$$3 \times x = 6 \times 5$$

$$3x = 6 \times 5$$

$$\frac{3x}{3} = \frac{6 \times 5}{3}$$

$$x = 2 \times 5$$

方べきの定理 #29 1 (1)



$$3 \times x = 6 \times 5$$

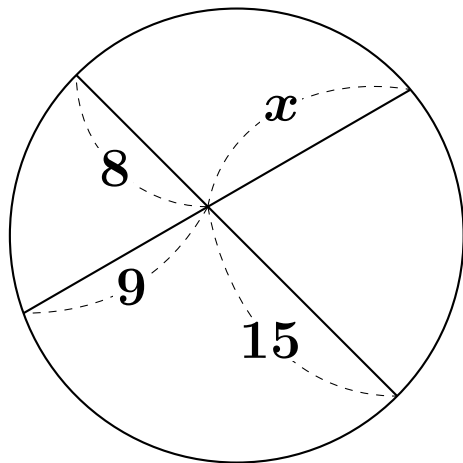
$$3x = 6 \times 5$$

$$\frac{3x}{3} = \frac{6 \times 5}{3}$$

$$x = 2 \times 5$$

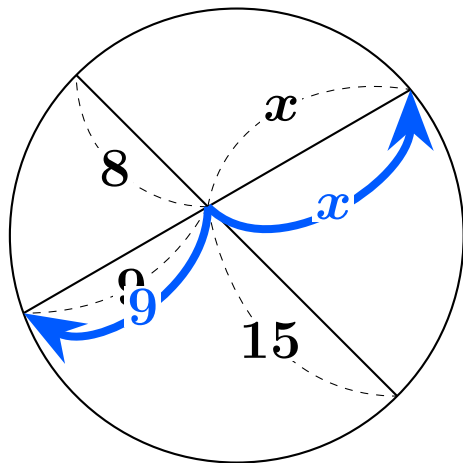
$$x = 10 \quad \boxed{\text{答}}$$

方べきの定理 #29 1 (4)



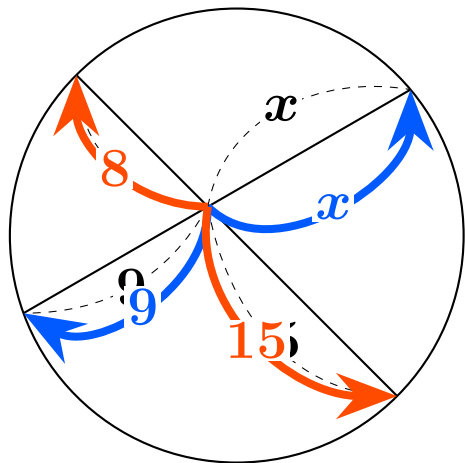
方べきの定理 #29 1 (4)

$$9 \times x$$

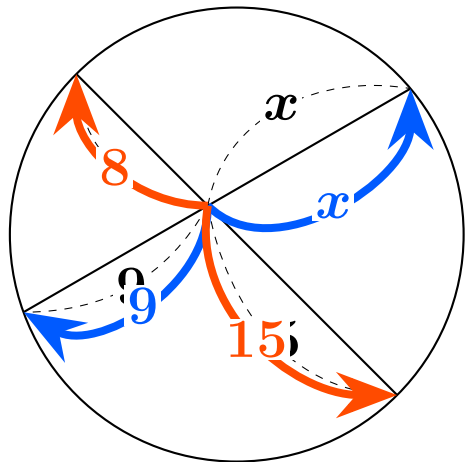


方べきの定理 #29 $\square 1$ (4)

$$9 \times x = 8 \times 15$$

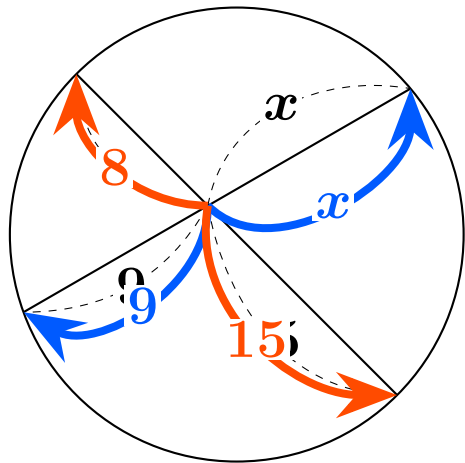


方べきの定理 #29 1 (4)



$$9 \times x = 8 \times 15$$
$$\frac{9 \times x}{9} = \frac{8 \times 15}{9}$$

方べきの定理 #29 1 (4)

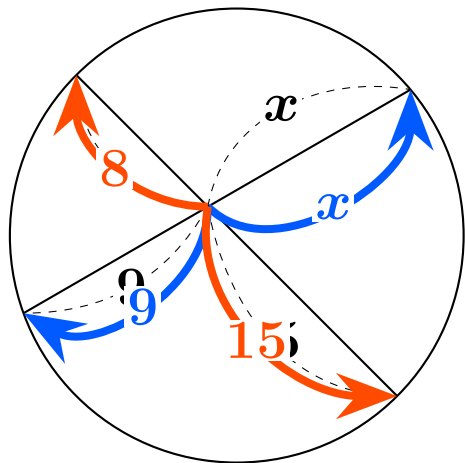


$$9 \times x = 8 \times 15$$

$$\frac{9 \times x}{9} = \frac{8 \times 15}{9}$$

$$x = \frac{8 \times 5}{3}$$

方べきの定理 #29 1 (4)



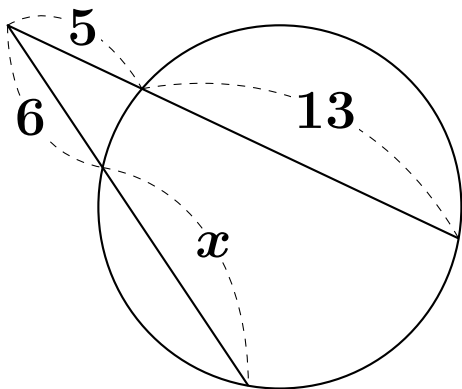
$$9 \times x = 8 \times 15$$

$$\frac{9 \times x}{9} = \frac{8 \times 15}{9}$$

$$x = \frac{8 \times 5}{3}$$

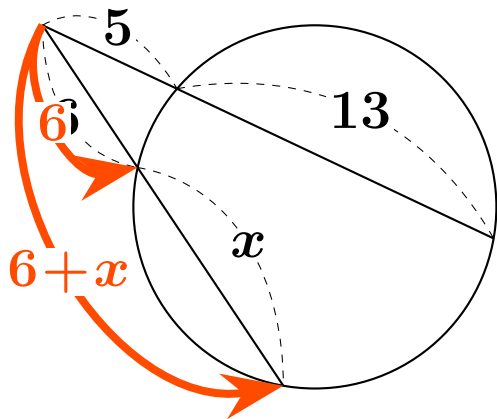
$$x = \frac{40}{3} \quad \boxed{\text{答}}$$

方べきの定理 #29 1 (2)

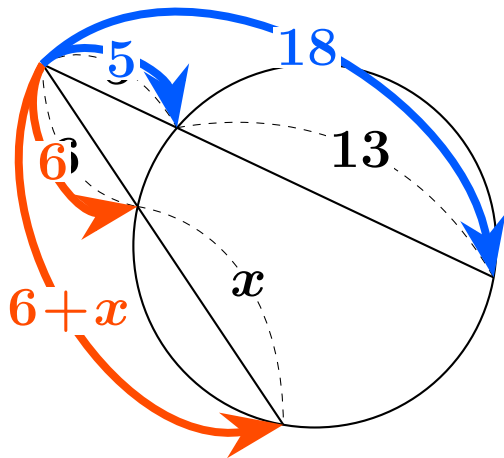


方べきの定理 #29 1 (2)

$$6(6+x)$$

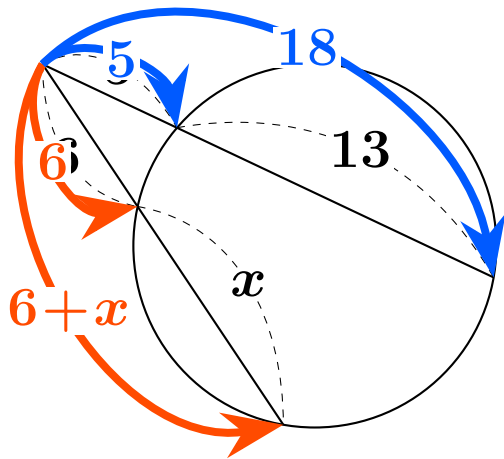


方べきの定理 #29 $\square 1$ (2)



$$6(6+x) = 5 \times 18$$

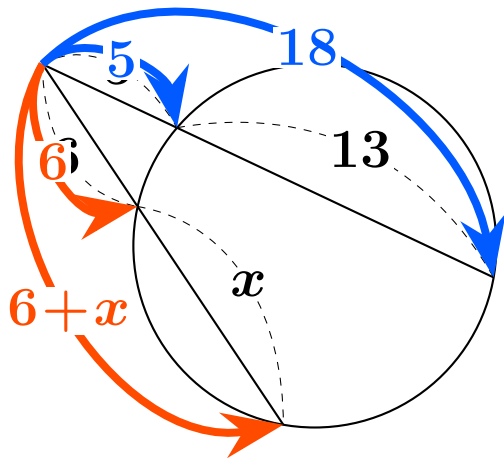
方べきの定理 #29 1 (2)



$$6(6+x) = 5 \times 18$$

$$36 + 6x = 90$$

方べきの定理 #29 1 (2)

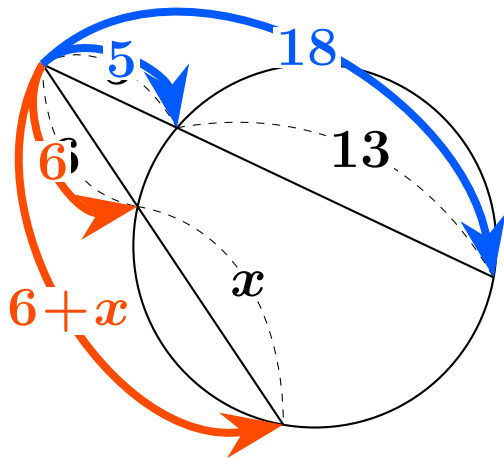


$$6(6+x) = 5 \times 18$$

$$36 + 6x = 90$$

$$6x = 54$$

方べきの定理 #29 1 (2)



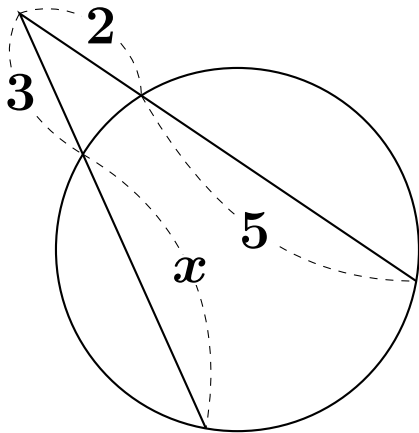
$$6(6+x) = 5 \times 18$$

$$36 + 6x = 90$$

$$6x = 54$$

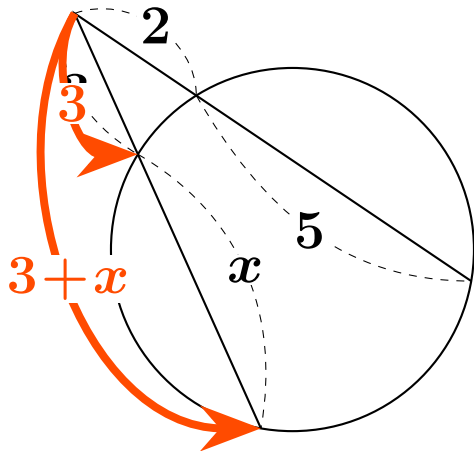
$$x = 9 \quad \boxed{\text{答}}$$

方べきの定理 #30 1 (3)

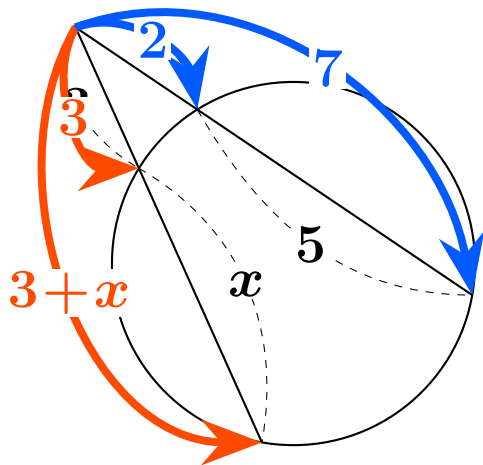


方べきの定理 #30 $\square 1$ (3)

$$3(3+x)$$

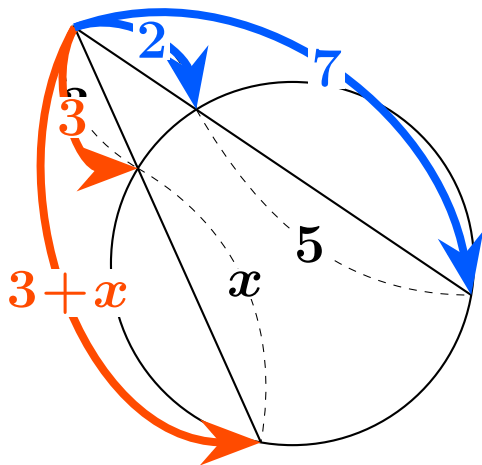


方べきの定理 #30 $\square 1$ (3)



$$3(3+x) = 2 \times 7$$

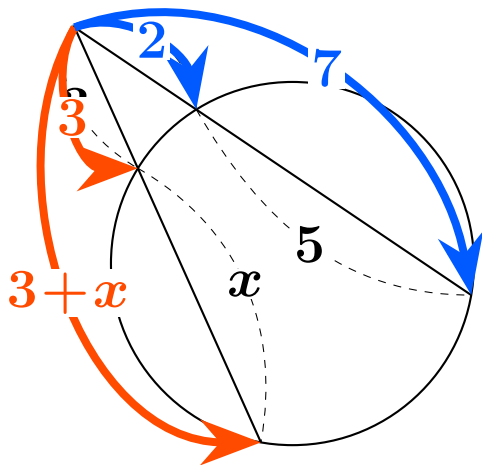
方べきの定理 #30 $\square 1$ (3)



$$3(3+x) = 2 \times 7$$

$$9 + 3x = 14$$

方べきの定理 #30 $\square 1$ (3)

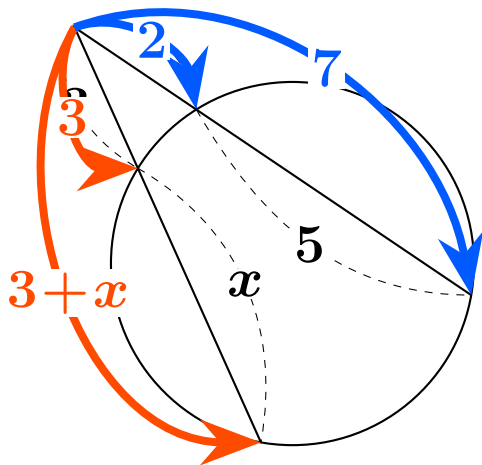


$$3(3+x) = 2 \times 7$$

$$9 + 3x = 14$$

$$3x = 5$$

方べきの定理 #30 $\square 1$ (3)



$$3(3+x) = 2 \times 7$$

$$9 + 3x = 14$$

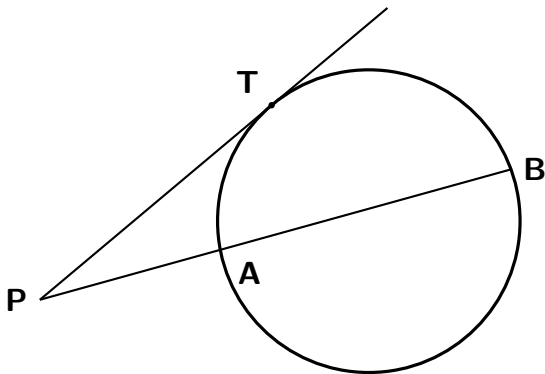
$$3x = 5$$

$$x = \frac{5}{3}$$

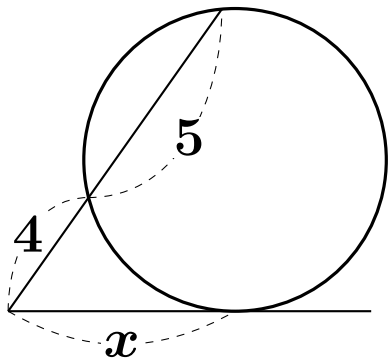
\square 答

方べきの定理 (変形版) PT は接線

以下の図のとき $PA \times PB = PT^2$

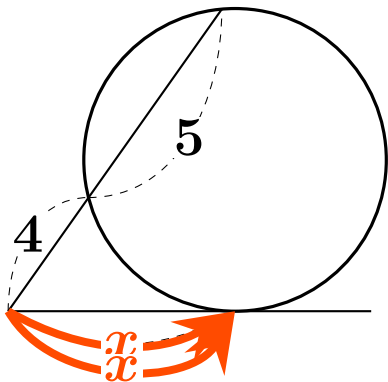


方べきの定理 (変形版) #30 2 (1)



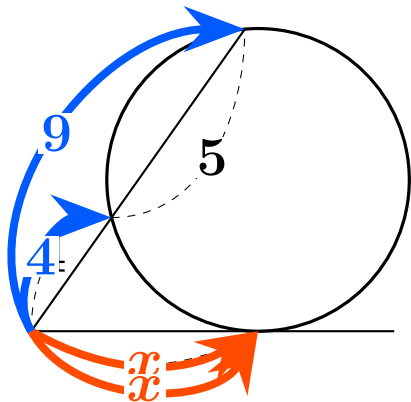
方べきの定理 (変形版) #30 2 (1)

$x \times x$

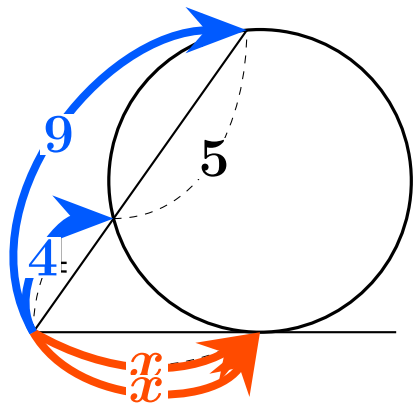


方べきの定理 (変形版) #30 2 (1)

$$x \times x = 4 \times 9$$



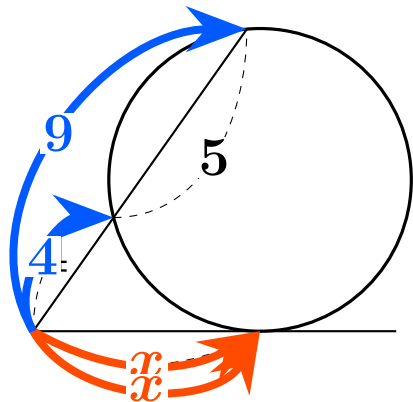
方べきの定理 (変形版) #30 2 (1)



$$x \times x = 4 \times 9$$

$$x^2 = 36$$

方べきの定理 (変形版) #30 2 (1)

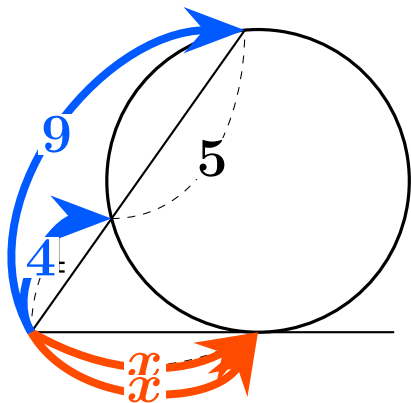


$$x \times x = 4 \times 9$$

$$x^2 = 36$$

$$\sqrt{x^2} = \pm \sqrt{36}$$

方べきの定理 (変形版) #30 2 (1)



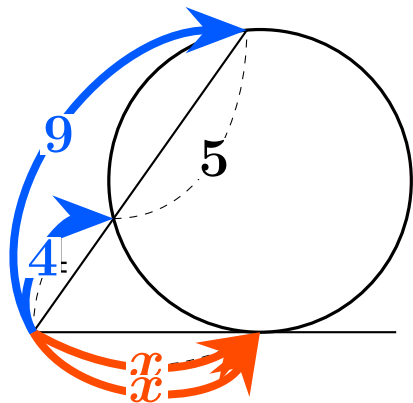
$$x \times x = 4 \times 9$$

$$x^2 = 36$$

$$\sqrt{x^2} = \pm \sqrt{36}$$

$$x = \pm 6$$

方べきの定理 (変形版) #30 2 (1)



$$x \times x = 4 \times 9$$

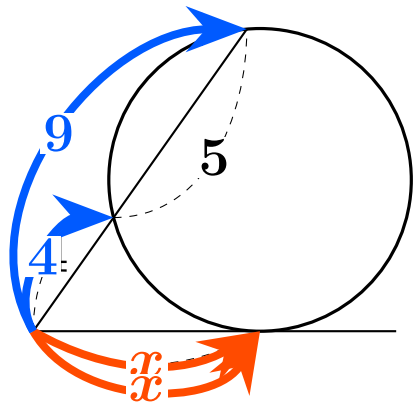
$$x^2 = 36$$

$$\sqrt{x^2} = \pm \sqrt{36}$$

$$x = \pm 6$$

$x > 0$ より

方べきの定理 (変形版) #30 2 (1)



$$x \times x = 4 \times 9$$

$$x^2 = 36$$

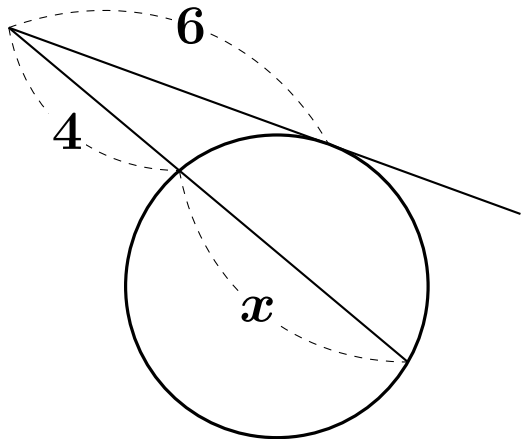
$$\sqrt{x^2} = \pm \sqrt{36}$$

$$x = \pm 6$$

$x > 0$ より

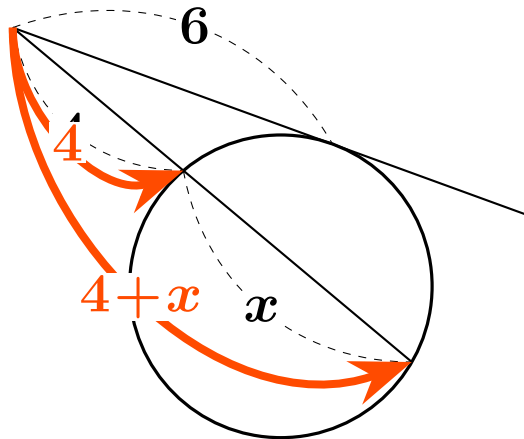
$$x = 6 \quad \boxed{\text{答}}$$

方べきの定理 (変形版) #29 2 (1)



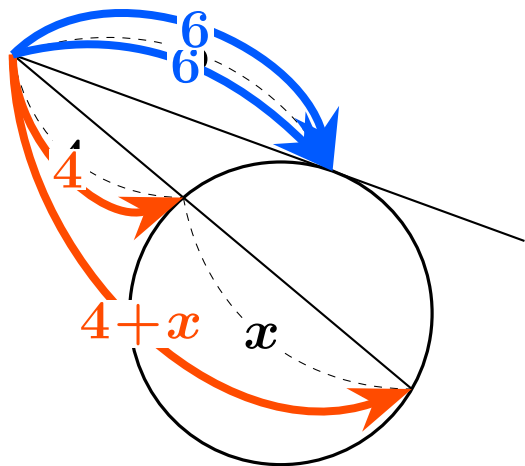
方べきの定理 (変形版) #29 2 (1)

$$4(4+x)$$

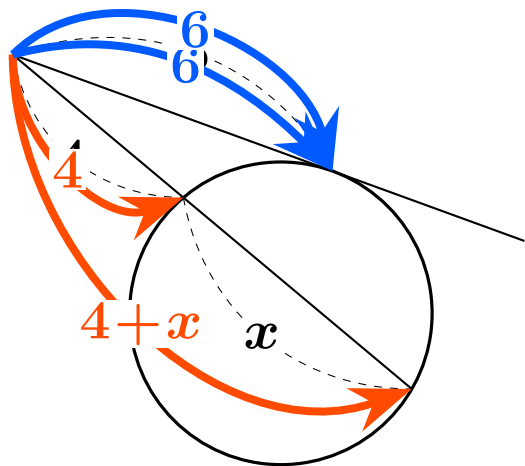


方べきの定理 (変形版) #29 2 (1)

$$4(4+x) = 6 \times 6$$



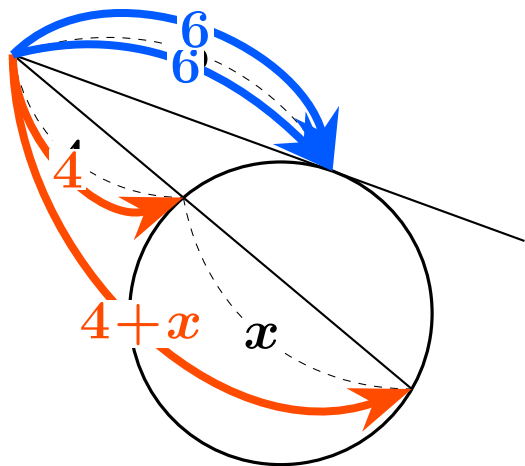
方べきの定理 (変形版) #29 2 (1)



$$4(4+x) = 6 \times 6$$

$$16 + 4x = 36$$

方べきの定理 (変形版) #29 2 (1)

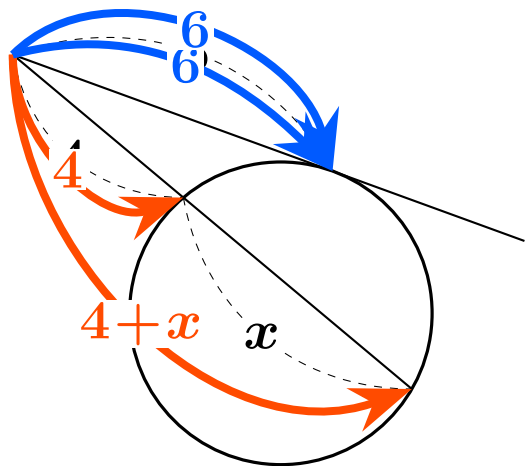


$$4(4+x) = 6 \times 6$$

$$16 + 4x = 36$$

$$4x = 20$$

方べきの定理 (変形版) #29 2 (1)



$$4(4+x) = 6 \times 6$$

$$16 + 4x = 36$$

$$4x = 20$$

$$x = 5 \quad \boxed{\text{答}}$$