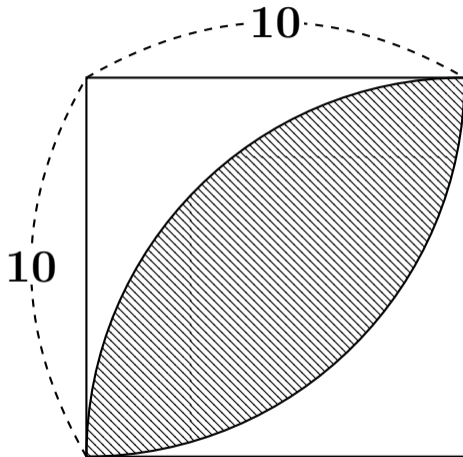
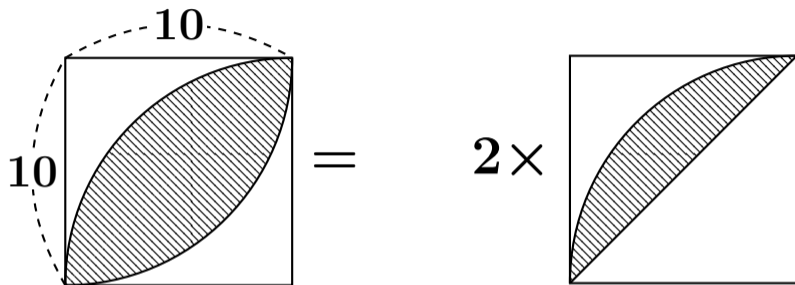


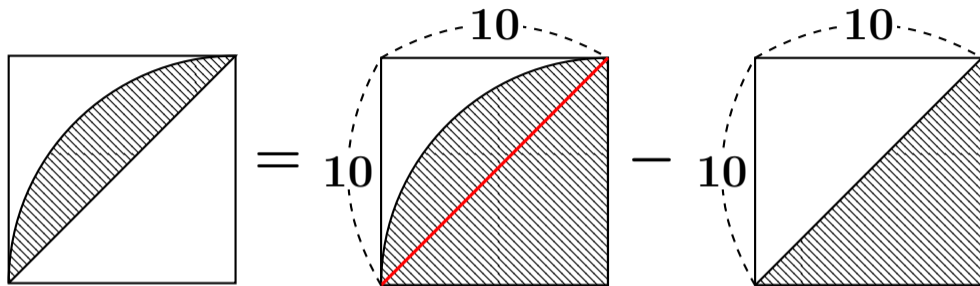
面積を求めなさい



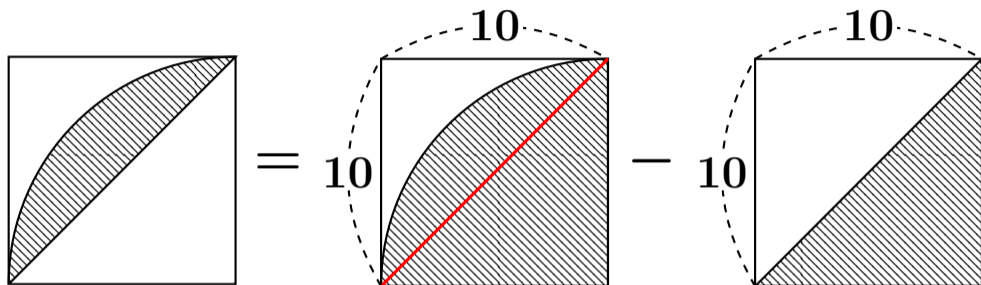
面積を求めなさい



面積を求めなさい



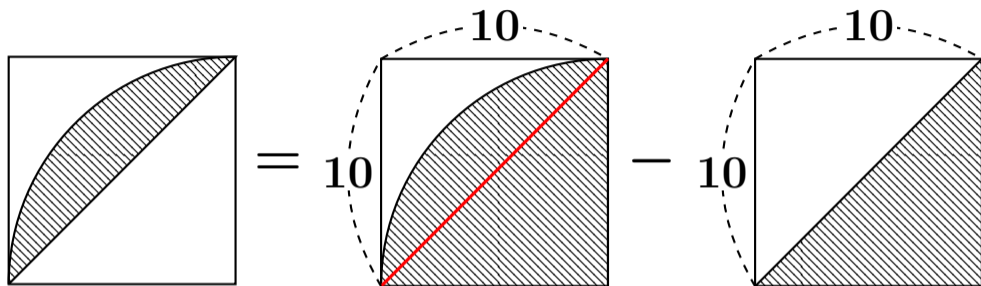
面積を求めなさい



The diagram illustrates the calculation of the area of a shaded region in a square. The square has a side length of 10. The shaded region is bounded by the left and bottom sides of the square, the diagonal, and a quarter-circle arc with radius 10. The calculation is shown as follows:

$$= \frac{\pi \times 10^2}{4} - \frac{10 \times 10}{2}$$

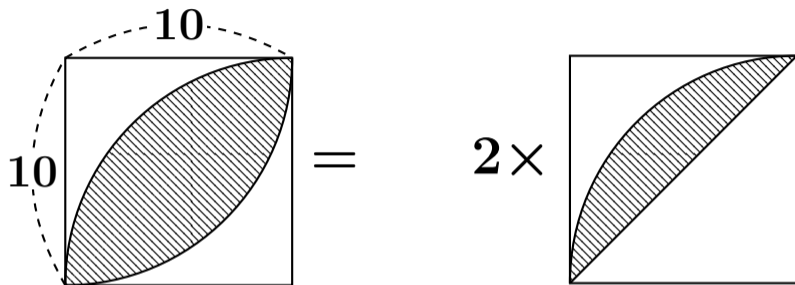
面積を求めなさい



$$= \frac{\pi \times 10^2}{4} - \frac{10 \times 10}{2}$$

$$= 25\pi - 50$$

面積を求めなさい

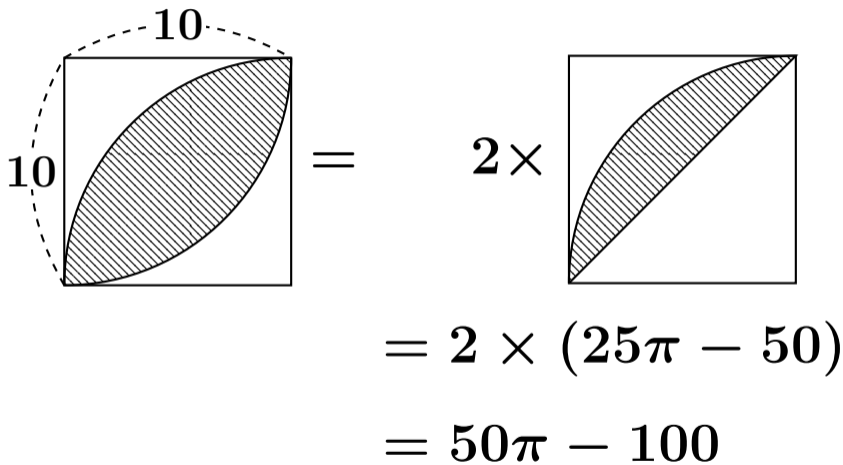


面積を求めなさい

The diagram illustrates the calculation of the area of a lens-shaped region. On the left, a square with side length 10 is shown. A dashed arc with radius 10 is drawn from the bottom-left corner to the top-right corner. The region bounded by the square's sides and the arc is shaded with diagonal lines. This shaded region is equal to twice the area of a quarter-circle of radius 10, minus the area of the square. The right side of the diagram shows a single quarter-circle of radius 10, also shaded with diagonal lines, representing one of the two regions used in the calculation.

$$= 2 \times (25\pi - 50)$$

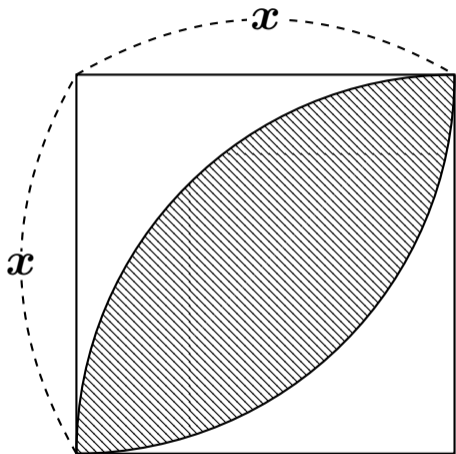
面積を求めなさい



The diagram illustrates the calculation of the area of a lens-shaped region. On the left, a square with side length 10 is shown. Two quarter-circles of radius 10 are drawn from opposite corners, intersecting to form a lens-shaped region shaded with diagonal lines. Dashed lines and the number 10 indicate the radius and side length. This is equated to twice the area of a quarter-circle minus a square, which is then calculated as $50\pi - 100$.

$$\begin{aligned} &= 2 \times \text{[Quarter Circle Area]} - \text{[Square Area]} \\ &= 2 \times (25\pi - 50) \\ &= 50\pi - 100 \end{aligned}$$

一般化すると下記のようになる



$$\frac{x^2}{2} \pi - x^2$$