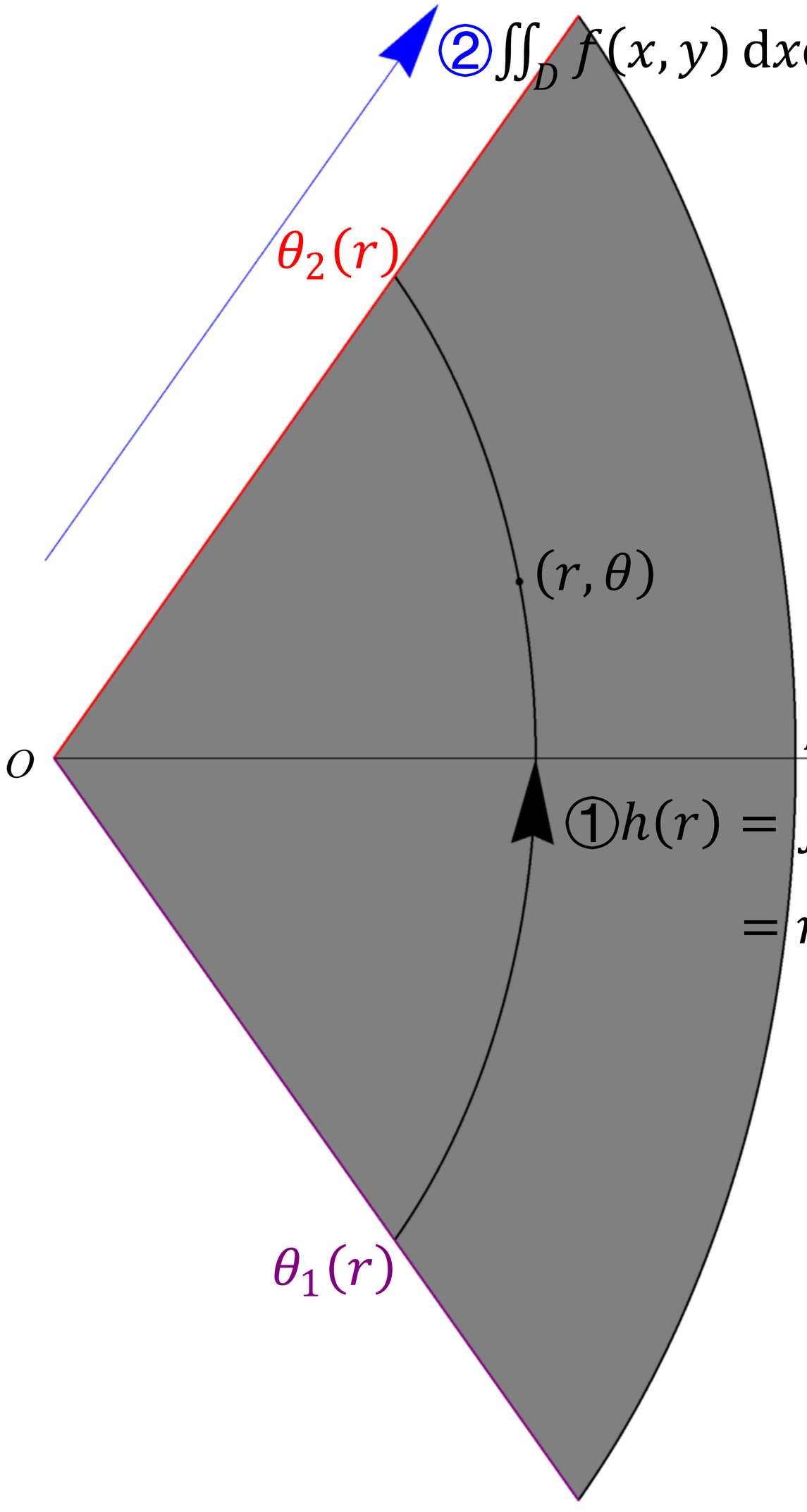

$$②\iint_D f(x,y)\,\mathrm{d}x\mathrm{d}y = \int_0^R \mathrm{d}r = \int_0^R \mathrm{d}r\, h(r)$$

$$= \int_0^R \mathrm{d}r \left[r \int_{\theta_1(r)}^{\theta_2(r)} f(r\cos\theta\,, r\sin\theta)\,\mathrm{d}\theta \right]$$

$$= \int_0^R r\mathrm{d}r \int_{\theta_1(r)}^{\theta_2(r)} f(r\cos\theta\,, r\sin\theta)\,\mathrm{d}\theta$$

$$①h(r) = \int_{\theta_1(r)}^{\theta_2(r)} f(r\cos\theta\,, r\sin\theta) r\,\mathrm{d}\theta$$

$$= r \int_{\theta_1(r)}^{\theta_2(r)} f(r\cos\theta\,, r\sin\theta)\,\mathrm{d}\theta$$