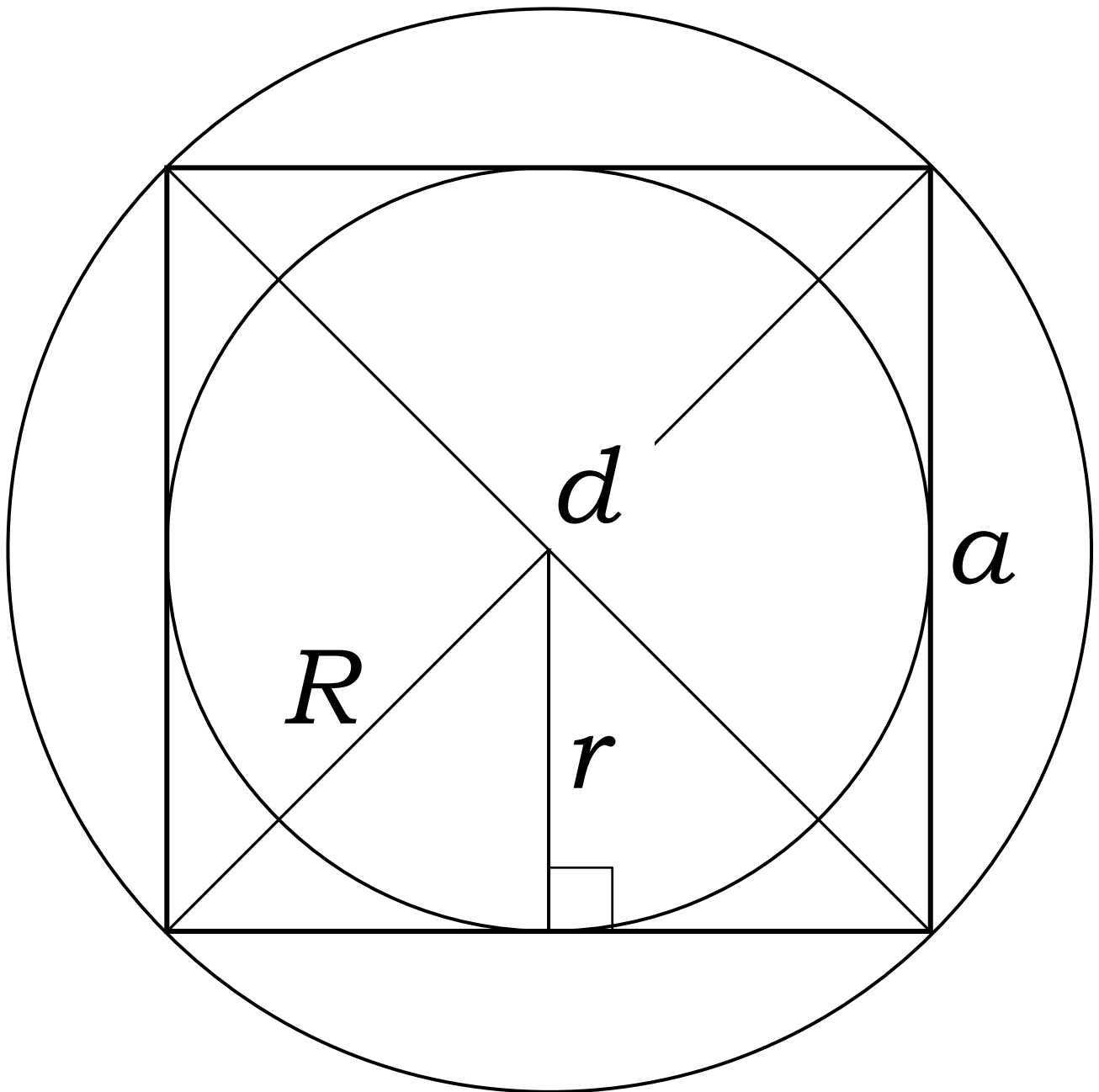


Правильный четырехугольник – квадрат



$$S = a^2 = 2R^2 = 4r^2 = \frac{d^2}{2}$$

$$R = \frac{a}{\sqrt{2}} = r\sqrt{2} = \frac{d}{2}; \quad r = \frac{a}{2} = \frac{R}{\sqrt{2}}$$

$$d = a\sqrt{2} = 2R = 2r\sqrt{2}$$