вар.	постр.	$S_{(ДСК)}$	$S_{(ПСК)}$	$S_{(парам)}$	$l_{(ДСК)}$	$l_{(ПСК)}$	$l_{(парам.)}$	$V_{(Ox),(Oy)}$
1	$\rho = \frac{9}{4-5\cos\varphi}$	$y = \frac{x^2}{2}$ $y = \frac{1}{1+x^2}$	$\rho = \cos\varphi$ $\rho = 2\cos\varphi$ $y \geq \frac{x}{\sqrt{3}}$	$\begin{cases} x = 2\cos t \\ y = 3\sin t \end{cases}$ $x \geq 1$	$y = e^x - 2$ $x \in [\ln 8; \ln 24]$	$\rho = 2\sin^3\frac{\varphi}{3}$ $\varphi \in [0; \frac{\pi}{4}]$	$\begin{cases} x = (t^2-2)\sin t + 2t\cos t \\ y = (2-t^2)\cos t + 2t\sin t \end{cases}$ $t \in [0; \frac{\pi}{2}]$	$y = x^2+1$ $y = x+1$
2	$\rho^2 \sin 2\varphi = 2$	$x^2 = y+1$ $x^2 = 9-y$	$\rho = \sin\varphi$ $\rho = 2$ $y \leq x$	$\begin{cases} x = \cos t \\ y = 2\sin t \end{cases}$ $y \geq 1$	$y = \ln(x^2-1)$ $x \in [2; 3]$	$\rho = \varphi^2$ $\varphi \in [0; \frac{\pi}{2}]$	$\begin{cases} x = 2(t - \sin t) \\ y = 2(1-\cos t) \end{cases}$ 1 арка	$y = x^2+2$ $y = 1-x$ $x = 0$ $x = 1$
3	$\rho \sin(\varphi + \frac{\pi}{4}) = \sqrt{2}$	$y^2 = x^3$ $x = 2$	$\rho = \cos 3\varphi$ $\rho = 3\cos 3\varphi$	$\begin{cases} x = 8\cos^3 t \\ y = 8\sin^3 t \end{cases}$ $x \geq 1$	$y = \sqrt{1-x^2} + \arcsin x$ $x \in [0; \frac{7}{9}]$	$\rho = 1 - \cos\varphi$	$\begin{cases} x = 3(\cos t + t\sin t) \\ y = 3(\sin t - t\cos t) \end{cases}$ $t \in [0; \frac{\pi}{2}]$	$y = \frac{3}{x}$ $y = \frac{x}{3}$ $x = 1$
4	$\rho = \sin 2\varphi$	$xy = 6$ $x+y = 7$	$\rho = 2\sin 4\varphi$ $\rho = 3\sin 4\varphi$	$\begin{cases} x = 2(t - \sin t) \\ y = 2(1-\cos t) \end{cases}$ $y \geq 3$	$y = \ln\cos x$ $x \in [0; \frac{\pi}{3}]$	$\rho = e^{2\varphi}$ $\varphi \in [0; \pi]$	$\begin{cases} x = 5\cos^3 t \\ y = 5\sin^3 t \end{cases}$	$y = x^2$ $y = \sqrt{x}$
5	$\rho = \frac{1}{1-2\sin\varphi}$	$y = \frac{x^2}{4}$ $y = \frac{8}{x^2+4}$	$\rho = \cos\varphi$ $\rho = \sqrt{3}\sin\varphi$	$\begin{cases} x = 4\cos t \\ y = 4\sin t \end{cases}$ $x \geq 2$	$y = \arcsin\sqrt{x} + \sqrt{x - x^2}$ $x \in [0; 1]$	$\rho = \cos^3\frac{\varphi}{3}$ $\varphi \in [0; \frac{\pi}{2}]$	$\begin{cases} x = \frac{t^3}{3} - t \\ y = t^2 + 2 \end{cases}$ $t \in [0; 3]$	$y = (x-2)^2$ $y = x$ $y = 0$
6	$\rho = \cos^3\varphi$	$y = \cos x$ $y = x+1$ $y = 0$	$\rho = \sqrt{3}\cos\varphi$ $\rho = -\sin\varphi$	$\begin{cases} x = 3\cos^3 t \\ y = 3\sin^3 t \end{cases}$ $x^2 + y^2 \leq 9$	$y = \frac{\ln x}{2} - \frac{x^2}{4}$ $x \in [1; 2]$	$\rho = 4(1+\cos\varphi)$ $\varphi \in [0; \frac{\pi}{2}]$	$\begin{cases} x = e^t\cos t \\ y = e^t\sin t \end{cases}$ $t \in [0; \pi]$	$y = e^x$ $y = e^{-x}$ $x = 1$
7	$\rho = \frac{5}{3-4\cos\varphi}$	$y = e^x$ $x+y = 1$ $x = 2$	$\rho = \cos 2\varphi$ $\rho = 2\cos 2\varphi$	$\begin{cases} x = \cos^3 t \\ y = 8\sin^3 t \end{cases}$ $y \geq 1$	$y = 2e^x + 1$ $x \in [\ln\frac{\sqrt{3}}{2}; \ln\frac{\sqrt{15}}{2}]$	$\rho = 4\cos\varphi$ Ниже данной $y = x$	$\begin{cases} x = 8\sin t + 6\cos t \\ y = 6\sin t - 8\cos t \end{cases}$ $t \in [0; \frac{\pi}{4}]$	$y = x+1$ $y = x-1$ $y = 1$ $y = 2$

вар.	постр.	S (дск)	S (пск)	S (парам.)	l (дск)	l (пск)	l (парам.)	$V_{ox,oy}$
8	$\rho = 2+\cos\varphi$	$y = e^{-x}$ $y = x+1$ $x = -1$	$\rho = \sin 2\varphi$ $\rho = 4\sin 2\varphi$	$\begin{cases} x = 2\cos t \\ y = \sin t \end{cases}$ $x \le 1$	$y = \sqrt{x-x^2} - \arccos\sqrt{x}$ $x \in [\frac{1}{9}; \frac{1}{4}]$	$\rho = 3\varphi^2$ $\varphi \in [0; \frac{\pi}{3}]$	$\begin{cases} x = 2\cos t - \cos 2t \\ y = 2\sin t - \sin 2t \end{cases}$ $t \in [0; \frac{\pi}{4}]$	$y = x+1$ $x+y = 3$ $y = 1$
9	$\rho = \frac{1}{2\sin\varphi + \cos\varphi}$	$y = 2^x$ $y = 2^{-x}$ $y = 2$	$\rho = 5$ $\rho = 5\cos 3\varphi$	$\begin{cases} x = 8\cos^3 t \\ y = 3\sin^3 t \end{cases}$ $x \ge 3\sqrt{3}$	$y = \ln(2x^2 - 2)$ $x \in [2; 4]$	$\rho = 2(1-\cos\varphi)$ $\varphi \in [0; \frac{\pi}{2}]$	$\begin{cases} x = e^t(\cos t + \sin t) \\ y = e^t(\cos t - \sin t) \end{cases}$ $t \in [0; \pi]$	$y = 1-x^2$ $y = x-2$ $y \ge 0$ $y \le 1$
10	$\rho = \cos 4\varphi$	$y = \sin x$ $y = 2\sin x$ $x = \frac{\pi}{2}$	$\rho = a\varphi^2$ $y \ge \frac{x}{\sqrt{3}}$ $y \le x\sqrt{3}$	$\begin{cases} x = 5\cos t \\ y = 4\sin t \end{cases}$ $y \ge 2$	$y = \ln\sin x$ $x \in [\frac{\pi}{6}; \frac{\pi}{2}]$	$\rho = 3\sin^3\frac{\varphi}{3}$ $\varphi \in [0; \frac{\pi}{3}]$	$\begin{cases} x = 3(t - \sin t) \\ y = 3(1 - \cos t) \end{cases}$ 1 арка	$y = 2^x$ $y = 1$ $x = 2$
11	$\rho = \frac{1}{\cos\varphi - \sin\varphi}$	$y = \sin x$ $y = \cos x$ содерж. н.к.	$\rho = a(1+\cos\varphi)$	$\begin{cases} x = 5(t - \sin t) \\ y = 5(1 - \cos t) \end{cases}$ $y \ge 5$	$y = \frac{x^3}{6} + \frac{1}{2x}$ $x \in [2; 3]$	$\rho = 2e^{3\varphi}$ $\varphi \in [0; \frac{\pi}{2}]$	$\begin{cases} x = 2\cos^3 t \\ y = 2\sin^3 t \end{cases}$ в I четв.	$y = x+1$ $x+y = 3$ $x = 0$
12	$\rho = \frac{1}{2+\sin\varphi}$	$y = \frac{1}{x}$ в I ч. $y = x$ $y = \frac{x}{9}$	$\rho = a\varphi$ ограничен. первым витком во II четв.	$\begin{cases} x = 4\cos^3 t \\ y = 4\sin^3 t \end{cases}$ $x^2 + y^2 \ge 4$	$y = \sqrt{1-x^2} + \arcsin x$ $x \in [-\frac{5}{9}; 0]$	$\rho = 2\cos^3\frac{\varphi}{3}$ $\varphi \in [-\frac{\pi}{4}; \frac{\pi}{4}]$	$\begin{cases} x = 5\sin t + 2\cos t \\ y = 2\sin t - 5\cos t \end{cases}$ $t \in [0; \pi]$	$y = x$ $y = x+1$ $x = 0$ $y = 2$
13	$\rho^2\cos 2\varphi = 4$	$y = x^2$ $y = -(x-3)(x-5)$ $y = 0$ $y = 1$	$\rho = 4\sin\varphi$ $y \ge \lvert x\rvert$	$\begin{cases} x = 2\cos^3 t \\ y = 8\sin^3 t \end{cases}$ $y \ge 2\sqrt{2}$	$y = e^{-x} + 4$ $x \in [-\ln\sqrt{24}; -\ln\sqrt{3}]$	$\rho = 1+\cos\varphi$ $\varphi \in [-\frac{\pi}{2}; \frac{\pi}{2}]$	$\begin{cases} x = e^t\cos t \\ y = e^t\sin t \end{cases}$ $t \in [-\frac{\pi}{4}; \frac{\pi}{2}]$	$y = \sqrt{x}$ $y = 2\sqrt{x}$ $y = x$
14	$\rho = 2+\sin 2\varphi$	$y = x^2$ $y = 2-x^3$ $x = -1$	$\rho = 8\cos\varphi$ $x \le 6$	$\begin{cases} x = 4\cos t \\ y = 5\sin t \end{cases}$ $x \ge 2\sqrt{2}$	$y = -\arcsin\sqrt{x} - \sqrt{x-x^2}$ $x \in [\frac{1}{4}; 1]$	$\rho = 3$ выше линии $y = \lvert x\rvert$	$\begin{cases} x = (t^2-2)\sin t + 2t\cos t \\ y = (2-t^2)\cos t + 2t\sin t \end{cases}$ $t \in [0; \pi]$	$y = 1-x^2$ $y = x+1$ $y = x-1$ $y = 2$ I четв.

вар.	постр.	S (дск)	S (пск.)	S (парам.)	l (дск)	l (пск)	l (парам.)	$V_{ox,oy}$
15	$\rho = \sin 4\varphi$	$y = \frac{2}{x}$ $y = 2x$ $y = \frac{x}{2}$ в I чет.	$\rho = 4(1+\cos\varphi)$ $\rho\cos\varphi = 3$ (спрята)	$\begin{cases} x = 2\cos t \\ y = 3\sin t \end{cases}$ $\begin{cases} x = 2\cos^3 t \\ y = 3\sin^3 t \end{cases}$	$y = \ln(2\cos x)$ $x \in [\frac{\pi}{6}; \frac{\pi}{4}]$	$\rho = 2\varphi^2$ $\varphi \in [0; \frac{\pi}{4}]$	$\begin{cases} x = e^t(\cos t + \sin t) \\ y = e^t(\cos t - \sin t) \end{cases}$ $t \in [0; \frac{\pi}{3}]$	$y = 1 - x^2$ $y = 2 - 2x^2$ $x \geq 0$
16	$\rho = \frac{2}{1 + 2\sin\varphi}$	$y = \lvert x \rvert$ $y = 2 - x^2$	$\rho = a\sqrt{2\cos 2\varphi}$ $\rho \leq a$	$\begin{cases} x = 3\cos t \\ y = 4\sin t \end{cases}$ $y \geq 2\sqrt{3}$	$y = \frac{\ln 3x}{2} - \frac{x^2}{4}$ $x \in [\frac{1}{2}; 1]$	$\rho = 3(1 - \cos\varphi)$ $\varphi \in [0; \frac{\pi}{4}]$	$\begin{cases} x = 4\cos^3 t \\ y = 4\sin^3 t \end{cases}$ I чет.	$y = x$ $y = x + 2$ $y = 3$ $x = 0$
17	$\rho^2 = 4\cos 2\varphi$	$y = 2 + x^3$ $y = \lvert x \rvert$ $x = 1$	$\rho = 4\sin 3\varphi$ $\rho \geq 2$	$\begin{cases} x = 4(t - \sin t) \\ y = 4(1 - \cos t) \end{cases}$ $y \geq 6$	$y = \ln(3x^2 - 3)$ $x \in [2; 5]$	$\rho = 3e^{\varphi}$ $\varphi \in [0; \frac{\pi}{4}]$	$\begin{cases} x = 2(\cos t + t\sin t) \\ y = 2(\sin t - t\cos t) \end{cases}$ $t \in [0; \pi]$	$y = 4x - x^2$ $y = x$
18	$\rho = 2 + \cos 2\varphi$	$y = 2\lvert x \rvert$ $y = x^2$	$\rho = a(1 + \sin\varphi)$ $\rho = a$ внутри общих	$\begin{cases} x = 4\cos t \\ y = 3\sin t \end{cases}$ $x \geq 2\sqrt{3}$	$y = e^{2x} - 1$ $x \in [\frac{1}{4}\ln\frac{3}{4}; \frac{1}{4}\ln 2]$	$\rho = 4\sin^3\frac{\varphi}{3}$ $\varphi \in [\frac{\pi}{6}; \frac{\pi}{3}]$	$\begin{cases} x = 5\cos^2 t \\ y = 5\sin^2 t \end{cases}$ $t \in [0; \frac{\pi}{2}]$	$y = x$ $x + y = 4$ $y = 3$
19	$\rho = \frac{1}{2\cos\varphi - 2\sin\varphi}$	$y = x^3$ $y = -x^3$ $y = 2 - x^2$	$\rho = \sqrt{6\cos 2\varphi}$ $\rho = 2\cos\varphi$ (вне)	$\begin{cases} x = 2\cos^3 t \\ y = 2\sin^3 t \end{cases}$ $x^2 + y^2 \leq 4$	$y = \sqrt{1 - x^2} - \arccos x + 4$ $x \in [-\frac{8}{9}; \frac{7}{9}]$	$\rho = 3(1 + \cos\varphi)$ $\varphi \in [0; \frac{\pi}{4}]$	$\begin{cases} x = 5(2\cos t - \cos 2t) \\ y = 5(2\sin t - \sin 2t) \end{cases}$ $t \in [0; \frac{\pi}{6}]$	$y = x$ $y = x + 2$ $y = 2$ $y = 3$
20	$\rho = 3\sin\varphi$	$y = 1 - x^2$ $y = \lvert x \rvert - 1$	$\rho = 2(1 + \cos\varphi)$ $y \geq -\frac{x}{2} + 2$	$\begin{cases} x = 8\cos^3 t \\ y = 10\sin^3 t \end{cases}$ $x \geq 2\sqrt{2}$	$y = \ln(3\sin x)$ $x \in [\frac{\pi}{4}; \frac{\pi}{3}]$	$\rho = 3\cos^3\frac{\varphi}{3}$ $\varphi \in [0; \frac{\pi}{3}]$	$\begin{cases} x = \frac{t^3}{3} - t \\ y = t^2 + 5 \end{cases}$ $t \in [0; 2]$	$y = \sqrt{x}$ $y = 2\sqrt{x}$ $x = 1$
21	$\rho = \sin^2\frac{\varphi}{2}$	$y = x^3$ $y = 2x^3$ $x = 1$	$\rho = a\cos^3\varphi$ $\rho = a\cos\varphi$ (вне)	$\begin{cases} x = 8(t - \sin t) \\ y = 8(1 - \cos t) \end{cases}$ $y \geq 8$	$y = \arccos\sqrt{x} - \sqrt{x - x^2}$ $x \in [\frac{1}{25}; \frac{1}{9}]$	$\rho = 6\sin\varphi$ ниже линии $y = x\sqrt{3}$	$\begin{cases} x = (t^2 - 2)\sin t + 2t\cos t \\ y = (2 - t^2)\cos t + 2t\sin t \end{cases}$ $t \in [0; \frac{\pi}{4}]$	$x + y = 1$ $x + y = 2$ $y = 0$ $x = 0$