

1.  $y = \frac{\sqrt{16-x^2}}{1-x-x^2}$
2.  $y = \ln \frac{3x+2}{7-x}$
3.  $y = \sqrt{-x} + \sqrt{4+x}$
4.  $y = \frac{1}{\sqrt{x^2-4x}}$
5.  $y = \sqrt{x^2-4x+3}$
6.  $y = \frac{1}{\ln(1-x)} + \sqrt{x+2}$
7.  $y = \frac{3}{4-x^2} + \ln(x^3-x)$
8.  $y = \sqrt{x^2-3x+2} + \frac{1}{\sqrt{3+2x-x^2}}$
9.  $y = \sqrt{\frac{x-2}{x+2}}$
10.  $y = \sqrt{x+1} - \sqrt{3-x}$
11.  $y = \frac{\sqrt{4-5x}}{x^2-8}$
12.  $y = \frac{\sqrt{3+x}}{x+2\sqrt{x}}$
13.  $y = \ln \frac{1-x}{1+2x}$
14.  $y = \frac{\sqrt{5x-1}}{x^2+9x+7}$
15.  $y = \frac{1}{\sqrt{x^2+3x-5}}$
16.  $y = \frac{2+\sqrt{x}}{x^2-x-1}$
17.  $y = \frac{\sqrt{x^3-x}}{x-2}$
18.  $y = \frac{1}{\sqrt{x^2-4x}}$
19.  $y = \sqrt{x^2-4x+3}$
20.  $y = \frac{x}{\sqrt{x^2-3x+2}}$
21.  $y = \arcsin \frac{x}{4}$
22.  $y = \arcsin(x-2)$
23.  $y = \arcsin(1-2x)$
24.  $y = \arccos \frac{1-2x}{4}$
25.  $y = \arcsin \sqrt{2x}$
26.  $y = \sqrt{1-|x|}$
27.  $y = \frac{1}{\sqrt{|x|-x}}$
28.  $y = \frac{1}{\sqrt{x-|x|}}$
29.  $y = \sqrt{\ln\left(\frac{5x-x^2}{4}\right)}$
30.  $y = \ln \sin x$
31.  $y = \arccos \frac{2}{2+\sin x}$
32.  $y = \frac{1}{\ln(1-x)} + \sqrt{x+2}$
33.  $y = \sqrt{3-x} + \arcsin \frac{3-2x}{5}$
34.  $y = \arcsin \frac{x-3}{2} - \ln(4-x)$
35.  $y = \sqrt{x} + \sqrt[3]{\frac{1}{x-2}} - \ln(2x-3)$
36.  $y = \sqrt{x-1} + 2\sqrt{1-x} + \sqrt{x^2+1}$
37.  $y = \frac{3}{4-x^2} + \ln(x^3-x)$
38.  $y = \arcsin(2-3x)$
39.  $y = \arctan \sqrt{x} - \frac{\sqrt{x-1}}{2-x}$
40.  $y = \frac{1}{\sqrt{\sin x}} + \sqrt[3]{\sin x}$
41.  $y = \ln \frac{x-5}{x^2-10x+24} - \sqrt[3]{x+5}$
42.  $y = \sqrt{\frac{x-2}{x+2}} + \sqrt{\frac{1-x}{\sqrt{1+x}}}$

43. 
$$y = \ln \sin(x-3) + \sqrt{16-x^2}$$

44. 
$$y = \frac{4}{1 + \sqrt{x^2 - 4}}$$

45. 
$$y = \sqrt{\sin x} + \sqrt{16-x^2}$$

46. 
$$y = (x^2 + x + 1)^{-\frac{3}{2}}$$

47. 
$$y = \ln(\sqrt{x-4} + \sqrt{6-x})$$

48. 
$$y = \ln(1 - \ln(x^2 - 5x + 16))$$

1.  $|x| \leq 4 \wedge x \neq -\frac{1}{2} \pm \frac{\sqrt{5}}{2}$
2.  $\left(-\frac{2}{3}; 7\right)$
3.  $\langle -4; 0 \rangle$
4.  $(-\infty; 0) \cup (4; \infty)$
5.  $(-\infty; -1) \cup (3; \infty)$
6.  $\langle -2; 0 \rangle \cup (0; 1)$
7.  $(-1; 0) \cup (1; 2) \cup (2; \infty)$
8.  $(-1; 1) \cup (2; 3)$
9.  $(-\infty; -2) \cup (2, \infty)$
10.  $\langle -1; 3 \rangle$
11.  $\langle -\infty; -2\sqrt{2} \rangle \cup \left(-2\sqrt{2}; \frac{4}{5}\right)$
12.  $\langle -3; 0 \rangle \cup (0; \infty)$
13.  $\left(-\frac{1}{2}; 1\right)$
14.  $\langle \frac{1}{5}; \infty \rangle$
15.  $\left(-\infty; \frac{-3 - \sqrt{29}}{2}\right) \cup \left(\frac{-3 + \sqrt{29}}{2}; \infty\right)$
16.  $\langle 0; \frac{1 + \sqrt{5}}{2} \rangle \cup \left(\frac{1 + \sqrt{5}}{2}; \infty\right)$
17.  $\langle -1; 0 \rangle \cup (1; 2) \cup (2; \infty)$
18.  $(-\infty; 0) \cup (4; \infty)$
19.  $(-\infty; 1) \cup (3; \infty)$
20.  $(-\infty; 1) \cup (2; \infty)$
21.  $\langle -4; 4 \rangle$
22.  $\langle 1; 3 \rangle$
23.  $\langle 0; 1 \rangle$
24.  $\left\langle \frac{3}{2}; \frac{5}{2} \right\rangle$
25.  $\langle -1; 1 \rangle$
26.  $(-\infty; 0)$
27. ***prázdná množina***

28.  $\langle 1; 4 \rangle$
29.  $\langle 2k\pi; (2k+1)\pi \rangle$
30.  $\langle 2k\pi; (2k+1)\pi \rangle$
31.  $\langle -2; 0 \rangle \cup \langle 0; 1 \rangle$
32.  $\langle -1; 3 \rangle$
33.  $\langle 1; 4 \rangle$
34.  $\left(\frac{3}{2}; 2\right) \cup (2; \infty)$
35.  $x = 1$
36.  $\langle -1; 0 \rangle \cup \langle 1; 2 \rangle$
37.  $\left\langle \frac{1}{3}; 1 \right\rangle$
38.  $\langle 1; 2 \rangle \cup (2; \infty)$
39.  $\langle 2k\pi; (2k+1)\pi \rangle$
40.  $(4; 5) \cup (6; \infty)$
41. *prázdná množina*
42.  $(3-2\pi; 3-\pi) \cup (3; 4)$
43.  $|x| \geq 2$
44.  $\langle -4; -\pi \rangle \cup \langle 0; \pi \rangle$
45.  $(-\infty; \infty)$
46.  $\langle 4; 6 \rangle$
47.  $(2; 3)$