

1	$\begin{cases} x + y = 9 \\ 2^{x-y} = 8 \end{cases}$	(6,3)
2	$\begin{cases} x + y = 12 \\ 3^{x-y} = 81 \end{cases}$	(8,4)
3	$\begin{cases} x - y = 5 \\ 4^{x+y} = 2 \end{cases}$	$\left(\frac{11}{4}, -\frac{9}{4}\right)$
4	$\begin{cases} x + y = -3 \\ 3^{xy} = 9 \end{cases}$	(-2, -1); (-1, -2)
5	$\begin{cases} 5^{x+2y} = 125 \\ x - 2y = 7 \end{cases}$	(5, -1)
6	$\begin{cases} 3^x + y = 0 \\ 3^{2x} + y = 6 \end{cases}$	(1, -3)
7	$\begin{cases} x + 2y = 3 \\ 4^{xy} = \left(\frac{1}{16}\right) \end{cases}$	(-1,2); $\left(4, -\frac{1}{2}\right)$
8	$\begin{cases} 3^{x-2} \cdot 9^y = 27 \\ x = 8 + y \end{cases}$	(7, -1)
9	$\begin{cases} 4^{x+2y} \cdot 16 = 64 \\ 3^{3x} = 9 \end{cases}$	$\left(\frac{2}{3}, \frac{1}{6}\right)$
10	$\begin{cases} 4^{x+1} \cdot 4^y = \left(\frac{1}{2}\right)^{x-1} \\ x + y = \frac{1}{3} \end{cases}$	$\left(-\frac{5}{3}, 2\right)$
11	$\begin{cases} y + 2^{2x} = 0 \\ y + 2^{2x-1} = -8 \end{cases}$	(2, -16)
12	$\begin{cases} 2^y \cdot 8^x = 4 \\ \frac{3^y}{9^x} = \left(\frac{1}{3^{4x}}\right) \end{cases}$	(2, -4)

13	$\begin{cases} \frac{4^x}{16^y} = 64 \cdot 256^{x+y} \\ \frac{2^y}{2^x} = \frac{1}{4^{3x}} \end{cases}$	$\left(\frac{1}{9}, -\frac{5}{9}\right)$
14	$\begin{cases} 4^{xy} = \sqrt{4} \\ 9^{-(x+y)} \cdot 27^y = 1 \end{cases}$	$\left(-\frac{1}{2}, -1\right); \left(\frac{1}{2}, 1\right)$
15	$\begin{cases} 25^x \cdot \sqrt{125^y} = 5 \\ 6^{x+5} = 6^{4-y} \end{cases}$	$(5, -6)$
16	$\begin{cases} 8^x = \frac{\sqrt[3]{8}}{8^{-y}} \\ \sqrt[6]{16} = 2^{xy} \end{cases}$	$\left(-\frac{2}{3}, -1\right); \left(1, \frac{2}{3}\right)$
17	$\begin{cases} 6^{2x+3y} = 6^{19} \\ (3^x)^{1+y} = 3^{12} \end{cases}$	$(2, 5); \left(9, \frac{1}{3}\right)$
18	$\begin{cases} 9^x + 9 = 10y \\ y = 3^x \end{cases}$	$(0, 1); (2, 9)$
19	$\begin{cases} 4^{3x-2y} = 1024 \\ 10^{6x-7y} = 10000 \end{cases}$	$(3, 2)$
20	$\begin{cases} x + 7^y = 0 \\ 2y + 7^{1-y} = 3 \end{cases}$	$\emptyset$
21	$\begin{cases} 36x^2 + 36y^2 = 13 \\ 8^{xy} = \sqrt[6]{8} \end{cases}$	$\left(\pm \frac{1}{2}, \pm \frac{1}{3}\right); \left(\pm \frac{1}{3}, \pm \frac{1}{2}\right)$
22	$\begin{cases} y - 5^{x-1} = 0 \\ 5 \cdot 3^x = 9y \end{cases}$	$(2, 5)$
23	$\begin{cases} 3\left(\frac{1}{2}\right)^{x+1} + y - 1 = 0 \\ y = \left(\frac{1}{2}\right)^{2x} \end{cases}$	$\left(1, \frac{1}{4}\right)$
24	$\begin{cases} {}^{x+y}\sqrt{3^x} \cdot {}^{x-y}\sqrt{3^y} = {}^{x^2-y^2}\sqrt{9^{xy}} \\ 4^y \cdot 4^x = 256 \end{cases}$	$S = \emptyset$

25	$\begin{cases} x = 3^y \\ \frac{2}{3} \cdot 3^{y+1} - x^2 + 3 = 0 \end{cases}$	(3,1)
26	$\begin{cases} 3^{x^2+y^2} = 243 \\ 10^x \cdot 10^5 = \frac{10^4}{10^y} \end{cases}$	(1, -2); (-2,1)
27	$\begin{cases} 3^x \cdot 3^5 + 27y = 28 \\ 3^{2x} - y + 2 \cdot 3^{2x} = 0 \end{cases}$	$(-2, \frac{1}{27})$
28	$\begin{cases} 1 + y = \left(\frac{1}{3}\right)^{\frac{1}{2}x+1} \\ y = \left(\frac{1}{3}\right)^x \end{cases}$	$\emptyset$
29	$\begin{cases} 3^{x-y} = \frac{1}{3} \\ 4^y \cdot 2^z = \frac{1}{16} \\ 3^x = 27^z \end{cases}$	$(-\frac{18}{7}, -\frac{11}{7}, -\frac{6}{7})$
30	$\begin{cases} x + y + z = 16 \\ 3^x = 3^{1+2z} \\ x^z = y^{2z} \end{cases}$	(9,3,4)
31	$\begin{cases} 2^{x/y-8} = 16 \\ 9^z = 3^{120/y} \\ x + z = 3y \end{cases}$	(-24, 2, 30); (88, 30, 2)
32	$\begin{cases} x + y = 4 \\ a^{x-y} = a^5 \end{cases}$	$(\frac{9}{2}, -\frac{1}{2})$
33	$\begin{cases} a^{x-1} \cdot a^{2x} = 1 \\ a^x = a^2 \cdot a^{12y} \end{cases}$	$(\frac{1}{3}, -\frac{5}{36})$
34	$\begin{cases} a^{2+x-y} = a^{2x} \\ b^{2x} \cdot \sqrt{b^y} - 1 = 0 \end{cases}$	$(-\frac{2}{3}, \frac{8}{3})$
35	$\begin{cases} a^{2y^2} - a^{4x} = 0 \\ \frac{b^{4x} \cdot \sqrt{b^{2x}}}{b^{\frac{3}{2}}} = \left(\frac{1}{b}\right)^y \end{cases}$	$(\frac{1}{2}, -1); (\frac{9}{50}, \frac{3}{5})$

36	$\begin{cases} \sqrt{a^{1-x}} \cdot \sqrt[3]{a^{x+4y}} = a^2 \\ b^3 \cdot \sqrt[4]{b^x} \cdot \sqrt[3]{b^{2(2+y)}} = \sqrt{b} \end{cases}$	$(-\frac{5}{2}, \frac{13}{16})$
37	$\begin{cases} m^{2x} = \frac{m^{15}}{m^y} \\ \frac{n^x}{n^{3y}} - n^4 = 0 \end{cases}$	(7,1)
38	$\begin{cases} m^{6y} : m^{5x} = 1 : m^7 \\ n^{2y} = n^{81} : n^{15x} \end{cases}$	(5,3)
39	$\begin{cases} \sqrt[9]{m^{12x+12}} = m^{x+2y} \\ n^{2x+y} = \sqrt[4]{n^{5(3+y)}} \end{cases}$	(2,1)
40	$\begin{cases} m^{2(x-1)} = m^{2y} \\ x^2 - 2y = 3 \end{cases}$	$(1 \pm \sqrt{2}, \pm \sqrt{2})$
41	$\begin{cases} y^x = 16 \\ y^{\frac{1}{x}} = 2 \end{cases}$	$(2,4); (-2, \frac{1}{4})$
42	$\begin{cases} 5^x - 3y = 0 \\ 2 \cdot 5^x + 9y = 1 \end{cases}$	$(-1, \frac{1}{15})$
43	$\begin{cases} 9^x + 13x = 0 \\ 9^x = \frac{3}{2} \end{cases}$	<i>impossibile</i>
44	$\begin{cases} 3^x - 2y = 0 \\ \frac{5}{2}y - 3^x = 2 \end{cases}$	$(\log_3 8, 4)$
45	$\begin{cases} 34 - 3^x = -y \\ 18y - 3^x = 0 \end{cases}$	$(\log_3 36, 2)$
46	$\begin{cases} \frac{1^x}{2} - 4y = 0 \\ 4y + 3 \cdot \frac{1^x}{2} = 1 \end{cases}$	$(2, \frac{1}{16})$
47	$\begin{cases} -\frac{1^x}{3} + \frac{1}{3} = 12y \\ 2y - \frac{1^x}{9} = 0 \end{cases}$	$(\log_3 6, \frac{1}{72})$

48	$\begin{cases} 3xy = 0 \\ 3y + \frac{1}{18} = 0 \end{cases}$	$(0, -\frac{1}{3})$
49	$\begin{cases} 3^x = 2y + 1 \\ 3^{2x} - 9y^2 = 0 \end{cases}$	$(\log_3 \frac{3}{5}, -\frac{1}{5}), (1, 1)$
50	$\begin{cases} \frac{1}{2} + y = 0 \\ y^2 - 4 = 0 \end{cases}$	$(-1, -2)$
51	$\begin{cases} \frac{1}{12}^{x+1} - 3y = 0 \\ 2y - \frac{1}{12}^x = 1 \end{cases}$	<i>impossibile</i>
52	$\begin{cases} 4^{xy} - 9 \cdot 2^{xy} + 8 = 0 \\ 3^{x+y} \cdot 9^{x-y} = 1 \end{cases}$	$x = 0, y = 0;$ $x = 1, y = 3;$ $x = -1, y = -3$
53	$\begin{cases} x - y = 2 \\ 3^{xy} = 1 \end{cases}$	$x = 0, y = -2;$ $x = 2, y = 0$
54	$\begin{cases} 3^x \cdot 9^y = 3 \\ x - y = -5 \end{cases}$	$x = -3, y = 2$
55	$\begin{cases} 3x - 2y = 8 \\ 3^{5x+6y} = 81 \end{cases}$	$x = 2, y = -1$
56	$\begin{cases} x^2 + y^2 = 17 \\ \left(\frac{1}{2^x}\right)^y = 16 \end{cases}$	$x = -1, y = -4;$ $x = 1, y = 4$
57	$\begin{cases} \sqrt{3^x} \cdot \sqrt[3]{3^y} = \frac{1}{\sqrt[3]{9}} \\ x^2 + y^2 = 5 \end{cases}$	$x = -2, y = 1;$ $x = \frac{2}{13}, y = -\frac{23}{13}$
58	$\begin{cases} x^{y-3} = 1 \\ y^{x-2} = y \end{cases}$	$x = -1, y = \pm 1;$ $x = 1, y = \pm 1;$ $x = 3, y = 3$
59	$\begin{cases} x^2 + xy + y^2 = 3a^2 + 1 \\ b^x - b^y = b^{2a} \end{cases}$	$x = a + 1, y = a - 1;$ $x = a - 1, y = a + 1$

60	$\begin{cases} x^{x+y} \cdot (a^x)^y = a^2 \\ (a^{x^2})^y = a^{6-xy^2} \end{cases}$	$x = 1, y = 2$
61	$\begin{cases} x^y = 125 \\ y^{2-y} = \frac{1}{3} \end{cases}$	$x = 5, y = 3$
62	$\begin{cases} x^y = y^x \\ x = 2y \end{cases}$	$x = 4, y = 2$
63	$\begin{cases} a^y \cdot a^y = a^4 \\ a^{x^2-y^2} = a^5 \end{cases}$	$x = 3, y = 2$
64	$\begin{cases} 3^x \cdot 5^y = 75 \\ 3^y \cdot 5^x = 45 \end{cases}$	$x = 1, y = 2$
65	$\begin{cases} y^x = 64 \\ y^{x+1} = 4y^{x-1} \end{cases}$	$x = 6, y = 2;$ $x = 6, y = -2$
66	$\begin{cases} a^x \cdot a^{2y} = a^6 \\ x - 3y = 1 \end{cases}$	$x = 4, y = 1;$
67	$\begin{cases} a^{x+y} \cdot a^{xy} = a^5 \\ a^{(x+y)^{xy}} = a^6 \end{cases}$	$x = 2, y = 1;$ $x = 1, y = 2$
68	$\begin{cases} \sqrt{a^x} \cdot \sqrt[3]{a^y} = a^5 \\ \sqrt[3]{b^x} \cdot \sqrt{b^y} = b^5 \end{cases}$	$x = 6, y = 6$
69	$\begin{cases} a^{7xy} = a^x \cdot a^y \\ a^{8xz} = a^x \cdot a^z \\ a^{9xy} = a^z \cdot a^y \end{cases}$	$x = \frac{1}{3}, y = \frac{1}{4}, z = \frac{1}{5}$ $x = 0, y = 0, z = 0$
70	$\begin{cases} y^{x^2-7x+12} = 1 \\ x + y = 6 \end{cases}$	$x = 3, y = 3; x = 4, y = 2$ $x = 5, y = 1; x = 7, y = -1$
71	$\begin{cases} \sqrt[3]{a^x} = \sqrt[4]{a^y} \\ \sqrt{b^x} \cdot \sqrt[4]{b^y} = b^5 \end{cases}$	$x = 6, y = 8$

72	$\begin{cases} \sqrt[5x]{a^2} \cdot \sqrt[2y]{a^3} = \sqrt[10]{a^{-3}} \\ \sqrt[2x]{a^5} \cdot \sqrt[2y]{a^3} = \sqrt[4]{a^7} \end{cases}$	$x = 2, y = 3$
73	$\begin{cases} x^y = 16 \\ \frac{x}{y} = 2 \end{cases}$	$x = 4, y = 2$
74	$\begin{cases} \sqrt[3]{a^x} \cdot \sqrt[4]{a^y} = \sqrt[6]{a^5} \\ \sqrt[4]{b^x} \cdot \sqrt[5]{b^y} = \sqrt[20]{b^{13}} \end{cases}$	$x = 1, y = 2$
75	$\begin{cases} x^y = y^x \\ \frac{x}{y} = \frac{5}{3} \end{cases}$	$x = \frac{25}{9} \sqrt{\frac{5}{3}}, y = \frac{5}{3} \sqrt{\frac{5}{3}}$
76	$\begin{cases} \sqrt[2x]{a^2} \cdot \sqrt[3y]{a^5} = \sqrt[6]{a^{13}} \\ \sqrt[3x]{a^2} \cdot \sqrt[5y]{a^3} = \sqrt[15]{a^{14}} \end{cases}$	$x = 2, y = 1$
77	$\begin{cases} 5^{4x} \cdot 125^y = 125 \\ 2 \cdot 2^{6x} = 16^{3y} \end{cases}$	$x = \frac{1}{2}, y = \frac{1}{3}$
78	$\begin{cases} a^x \cdot a^{5y} = a^{28} \\ a^{7x} : a^6 = a^{3y} \end{cases}$	$x = 3, y = 5$
79	$\begin{cases} 3^{x-2} + 9^{y-3} = \frac{82}{9} \\ x - 2y = 0 \end{cases}$	$x = 4, y = 2$
80	$\begin{cases} 4^{3x-4} + 8^{2y-4} = 80 \\ y - x = 1 \end{cases}$	$x = 2, y = 3$
81	$\begin{cases} x + y = 3 \\ 3^{xy} = 9 \end{cases}$	$x = 1, y = 2;$ $x = 2, y = 1$
82	$\begin{cases} 2^{x+y-1} = 16 \\ x^2 + y^2 = 17 \end{cases}$	$x = 1, y = 4;$ $x = 4, y = 1$
83	$\begin{cases} x^2 + y^2 = \frac{13}{36} \\ 2^{x+y} = \sqrt[6]{32} \end{cases}$	$x = \frac{1}{2}, y = \frac{1}{3};$ $x = \frac{1}{3}, y = \frac{1}{2}$