

I. Löse folgende Zahlen nach der Unbekannten auf!

1	$x + 4 = -1$	-5	2	$-2 + 2x = 4 + x$	6
3	$x - 5 = -3$	2	4	$3x - 4 = x + (-3 + x) - 1$	0
5	$-3 + x = -5$	-2	6	$4x - 5 = 2x - (3 - x)$	2
7	$-23 + x - 12 = 0$	33	8	$-2x + 6 = -(2x + 4) - x$	-10
9	$3 + x - 5 = -2 - (-4 - 7)$	11	10	$-4(x + 3) + 2(1 - x) = 5(2 - x)$	-20
11	$x + 5 = -(-4 - 2)$	1	12	$2(3x - 1) - 3(2 - x) = -4 + 10x$	-4
13	$2x + 4 - x = 4$	0	14	$3(x + 5) = -6$	-7
15	$2 + (-21 - 22) = x - 3$	-38	16	$3 - x = -7$	10
17	$x + 4 = -8$	-12	18	$-3(x + 2) = (2 - x)2$	-10
19	$1 - x = -(3 - 4)$	0	20	$2 - x = 4 - 2x$	2
21	$x - (-4 + 9 : 3) - (-5 + 4) = -1$	0	22	$7 - (1 + x) = -3$	9
23	$(-4 + 9) : (-2 - 3) = -x$	1	24	$2 - (-4 + 8) : (-2) = 5 + x$	-1
25	$2x - 1 = 3 + 2x$	∅	26	$10 - 3(5 - 4w) = 16w + 39$	-11
27	$-2[-4 + 3(-4)] : (-2 - 2) = 9 - x$	17	28	$3(0,8g + 9) - 8(0,8g + 11) = -11$	-12.5
29	$7(x - 2) - 2x = 6$	4	30	$32 + 2,25k = 0,25k - (0,5k + 8)$	-16
31	$c - 2(7c + 3) = 33$	-3	32	$4(3 - 3b) + 3b = -6$	2
33	$12(a - 0,4) + 0,9 = 10a - 0,7$	1.6	34	$4e - (5e + 12) = 2e - 24$	4
35	$6(1,5t - 2,5) - 1,5t = -15$	0	36	$-0,9m - (0,8 - 0,8m) = -0,9$	1
37	$3x + 4 - 2 + 6 = 10 + 2x$	2	38	$3x - (11 - 4) + 2x = 1 - (6 - 4x)$	2
39	$4x - [-3 + (x + 5 - 2) + 6] = -[-(2x + 5 - 6)]$	5	40	$3(1 - 4y) + 12y = 3$	R
41	$60 : x + 4 = 9$	12	42	$3x - (2 - 4x) = 5x + 8$	5
43	$3 - (2x + 5) = -3x + 7 + 4$	13	44	$(2x + 5) - (x + 1) = 25$	21
45	$7x - 2x + 4 - (3x + 7) = x + 4 - 2$	5	46	$3 = 2(r - 1) + 8r + 2$	0.3
47	$60 : (x + 4) = 5$	8	48	$a \cdot 9 = 72$	8
49	$[(2x + 3) - (5x + 7)] - [-4x + 5 - (2 + 7)] = -13$	-13	450	$m : 13 = 10$	130
51	$6(5x - 4) - 8(2x - 3) = 56$	4	52	$2x - (x - 5) - (x + 3) + (2x - 2) + 36 = 38$	1
53	$8x - 3 - (-4x + 1) + 2 = 13 - 3 + (8 - x) + 12x$	20	54	$3v + (5 - v) = 2 + (v + 3)$	0
55	$x - 27 = 98$	125	56	$x + 49 = 428$	379
57	$-(2x - 4) + \{8x - [3 - (2 - x) + 4x] - 1\} + 2 = 2x - 5$	9	58	$x - 16 = 10$	26
59	$16x - 6 - (-8x + 2) - (-2) + 4 = 14 - 6(8 - x)$	6	60	$-3[x - 2(2x + 1) - 4] = -4(x - 4) + 2$	0
61	$48 + x = 115$	67	62	$x : 7 = 12$	84
63	$x - 31 = 23$	54	64	$x : (-2) = 3(-4 + 2) - 5\{-2[-3(4 + 1)] - 29\}$	22
65	$x : (-3) = 4(-3 + 1) - 3\{-2[-4(5 + 2)] - 50\}$	78	66	$x + 17 = 39$	22
67	$x + 12 = 47$	35	68	$c - 2(7c + 3) = 32$	-3
69	$7(x - 2) - 2x = 6$	4	70	$12(a - 0,4) + 0,9 = 10a - 0,7$	1.6
71	$3(x - 4) = -2(2 - x)$	8	72	$4(2x - 3) = 2(3x - 4)$	2
73	$13 - 3(5 - x) = 7(x + 1) - 13$	1	74	$5(2x - 300) - (150 - x)2 = 3x$	200
75	$11r - (r - 3)2 = r - 9 + r$	$-\frac{15}{7}$	76	$8(2x - 3) - 5(2x - 8) = 32 - 4(1 - 3x) + 8x$	$-\frac{6}{7}$
77	$13x - 7(11 - x) + 11 = 4x - 3(20 - x) + 7x$	21	78	$8(y - 2) - 5(y - 2) = 6$	4
79	$360 : x + 8 : 2 = 40$	10	80	$7(3 - x) - 11(x + 2) + 19(2 + x) = 46$	9
81	$12 = -7(z + 2) + 4(z + 2)$	-6	82	$4(3 - 3b) + 3b = -6$	2
83	$8(2y - 3) + 5(4y + 1) = 5(2 - y) + 22$	1	84	$(3x - 11)8 + 4x = 25 - (13 - 7x)4$	∅
85	$6(z + 3) - 1 = 2(z - 7) + 3$	-7	86	$360 : (x + 8) : 2 = 10$	10

87	$3x = 48$	16	88	$45x = 15$	3
89	$x - 45 = 72$	117	90	$x : 12 = 84$	7
91	$x - 47 = -84$	-37	92	$x : 6 = 25$	150
93	$x + 72 = 12$	-60	94	$x - 137 = 0$	137
95	$(b:5-1)4+30=2$	-30	96	$x + 415 = 415$	0
97	$(4x-6)9=54$	3	98	$-7x = -161$	23
99	$x + -14 = -16$	-2	100	$x : (-17) = -4$	68
101	$6x + 1 = 19$	3	102	$6x = -216$	-36
103	$4x - 2 = 6$	2	104	$2x - 2 = 0$	1
105	$-25 + x = 78$	103	106	$-9x = 117$	-13
107	$x:5-1=34$	175	108	$(x+2) \cdot 3 = 24$	6
109	$(x-5) \cdot 7 = 0$	5	110	$3(5+2d) = 15$	0
111	$(3x+1) \cdot 6 = 42$	2	112	$2(v:2+5) = 12$	2
113	$(9x-12):3=2$	2	114	$4(6+2x) = 48$	3
115	$(-4x+8)3=-36$	5	116	$(3k+1)3=-24$	-3
117	$x:(-5)+12=7$	25	118	$3(-5+3x)=-15$	0
119	$(4+3x):5=2$	2	120	$(3+3h):5-1=-4$	-6
121	$x^3=27$	3	122	$(3m+5)^2-4=60$	$1; -\frac{13}{3}$
123	$2p^2+1=33$	$4; -4$	124	$x^2=81$	$3; -3$
125	$(5x+2)^2=144$	$2; -\frac{14}{5}$	126	$(h-3)^3=8$	5
127	$3x^2=75$	$5; -5$	128	$3+w^3=3$	1
129	$1+b^2=2$	$1; -1$	130	$x^3:3=9$	3
131	$x^2-5=11$	$4; -4$	132	$2x^3=54$	3
133	$(a+4)^2=25$	$1; -9$	134	$y^2+8=72$	$8; -8$
135	$(3+j:2)^3=216$	6	136	$4m^3-1=107$	3
137	$(x:6-3)^5-2=30$	30	138	$k^2:9+5=9$	$6; -6$
139	$x^3:7+1=50$	7	140	$2(x-3)-5(7-x)=7(x+9)$	\emptyset
141	$7+\sqrt{m}=12$	25	142	$\sqrt[3]{k}-6=5$	1331
143	$\sqrt{5+y}=7$	44	144	$\sqrt{6h}=12$	24
145	$\sqrt[3]{n-3}+4=5$	4	146	$\sqrt{2x-1}-1=10$	61
147	$4\sqrt{k+3}=8$	1	148	$3+\sqrt[3]{x}=6$	27
149	$\sqrt[3]{y}=2$	8	150	$\sqrt{x}=12$	144
151	$\sqrt{x}:4=3$	144	152	$8\sqrt{p}=72$	81
153	$3=\sqrt[3]{5+d:2}$	44	154	$\sqrt{3y-2}=4$	6
155	$(\sqrt{10p+4}):4=3$	14	156	$\sqrt[3]{g:2+5}+4=6$	6
157	$2(2x-4)^2+1=129$	$6; -2$	158	$(x-3)^2=x^2-3$	2
159	$(2x+1)^2=4x^2+(-2)(-2)$	$\frac{3}{4}$	160	$(8x+5)(2x+1)=(4x+3)(4x-1)-12$	-1.7
161	$3x^2-68=40$	$6; -6$	162	$2x(x+3)-(x+2)(2x-3)+14=0$	-4
163	$(x+3)^2-(x+2)^2=3$	-1	164	$5(x+2)^2-(2x-3)^2=(x-4)^2$	$\frac{1}{8}$
165	$\sqrt{3x}=-7+(-5)(-2)$	3	166	$(4x+2)^2+(3x+4)^2=(5x+8)^2-124$	$1; 9$
167	$4x^2=(-3)^2-7(-1)$	$2; -2$	168	$4(x+3)^2-(3x-2)^2=-5(x+1)^2-9$	$-\frac{25}{23}$
169	$\sqrt{2x}+5=11$	18	170	$\frac{2}{5}\sqrt[3]{2x}+\frac{21}{5}=5$	4

171	$\sqrt{\frac{1}{3}x+6}+2=5$	9	172	$1-4x^2=\sqrt{10-(-3)^2}$	0
173	$\frac{3}{4}\sqrt[3]{9x}+\frac{15}{4}=6$	3	174	$-3+4\sqrt{3x-2}=-13$	\emptyset
175	$7-\sqrt{8-x}=5$	4	176	$2-3(x-2^2)=\sqrt[3]{-512}-2$	8
177	$-\frac{3}{8}+x=-\frac{1}{4}$	$\frac{1}{8}$	178	$\frac{x}{3}+4=7$	9
179	$x:\frac{5}{7}=\frac{14}{3}$	$\frac{10}{3}$	180	$x+\frac{4}{5}=\frac{1}{2}$	$-\frac{3}{10}$
181	$\frac{2}{9}x=\frac{4}{3}$	6	182	$\frac{x}{4}=18$	72
183	$-\frac{2}{3}x-2\left(\frac{2}{5}-\frac{5}{6}x\right)=\frac{3}{5}$	$\frac{7}{5}$	184	$\frac{4}{5}y+\frac{2}{3}\left(\frac{1}{2}+\frac{3}{10}y\right)=-\frac{1}{6}$	$-\frac{1}{2}$
185	$\frac{5}{6}+\frac{1}{4}\left(\frac{2}{3}-\frac{6}{5}x\right)=\frac{8}{9}$	$\frac{10}{27}$	186	$4\frac{1}{2}=\frac{4}{9}\left(\frac{3}{2}y-\frac{1}{8}\right)-\frac{1}{6}y$	$-\frac{82}{9}$
187	$\frac{1}{4}(x+1)+\frac{1}{2}=\frac{1}{7}(3x-1)$	5	188	$\frac{4}{3}y+\frac{1}{5}(y+3)=\frac{2}{3}(3y-4)$	$-\frac{49}{8}$
189	$\frac{1}{5}(-z+3)+\frac{1}{4}=\frac{9}{5}-\frac{1}{4}(-z+2)$	-1	190	$\frac{2}{7}\left(r+\frac{3}{5}\right)+\frac{3}{7}\left(\frac{3}{5}+r\right)=\frac{5}{14}$	$-\frac{1}{10}$
191	$\frac{1}{3}(u-2)+1\frac{2}{3}=\frac{7}{6}-\frac{1}{2}(u+2)$	-1	192	$\frac{8}{9}\left(s-\frac{5}{6}\right)-\frac{2}{9}\left(-\frac{5}{6}+s\right)=\frac{5}{6}$	$\frac{25}{12}$
193	$-2\left(\frac{1}{4}+4x\right)=-\frac{11}{2}$	$\frac{5}{8}$	194	$2r-\frac{1}{2}=3\frac{1}{2}$	2
195	$3\left(x-\frac{4}{3}\right)-5(2x-1)=7(x+1)$	$-\frac{3}{7}$	196	$\left(\frac{2}{5}x-\frac{3}{4}\right):2=-\frac{1}{8}$	$\frac{5}{4}$
197	$(x-3)(x-5)-(x-2)(x-6)=0$	\emptyset	198	$(3x+4)(x-8)-(7-3x)(4-x)=0$	-60
199	$0,2^2+x-\sqrt{0,0016}=0,5\cdot 0,8$	0.4	200	$3,3v+4(3,2-0,2v)=2,8$	-4
201	$(1,2+0,1)x=\left(2+\frac{1}{3}\right)\cdot\left(4-\frac{1}{2}\right)^{-1}$	$\frac{1}{2}$	202	$\frac{x-1,2}{2}+(0,2+0,3)\div 2,5=2\div 0,4$	10.8
203	$(x+2,4)^2-5,9=4,23-2,3+1,17$	0.6 ; -5.4	204	$0,2\sqrt[3]{0,3x-0,144}-0,1=50^{-1}$	1.2
205	$3\left(\frac{y-1}{3}+\frac{1}{5}\right)-\frac{y}{2}=\frac{y+3}{4}+1$	$\frac{27}{5}$	206	$(x+0,13)(x-0,13)=0$	$0,13 ; -0,13$
207	$0,5\sqrt[4]{x+2}-3=-2$	14	208	$2(x+1)^2-(2x-3)(x+1)=0$	-1
209	$(5x-4,4)^2-1=-0,64$	1 ; 0.76	210	$3+\frac{2}{3}\sqrt[3]{2x-5}=2,\widehat{6}$	$\frac{39}{16}$
211	$\sqrt{x:3+2}+3=5$	6	212	$\frac{x+1}{2}=\frac{x-2}{3}$	-7
213	$10(x+2)^2-(3x-2)^2=(x-4)^2+80$	$1,0\overline{6}$	214	$\sqrt[3]{a}-0,5=0,\overline{4}$	1
215	$\sqrt[3]{\frac{1}{2}x^2-5}-2^2=-1$	8 ; -8	216	$(x+0,3)^2=0,04$	$-\frac{2}{15} ; -\frac{8}{15}$
217	$\frac{x-3}{2}-\frac{7-2x}{3}=\frac{-5-x}{6}$	$-\frac{9}{4}$	218	$\frac{x-0,\overline{3}}{-0,46}=-2+3(-0,1\overline{6})$	12
219	$\sqrt[3]{\frac{1}{2}x+1}-2=-1$	0	220	$\frac{(2x-1)^2}{0,3}=27$	2 ; -1
221	$\left(\frac{4}{5}x-1\right)^2=0,\overline{4}$	$\frac{5}{12} ; \frac{25}{12}$	222	$(x+2)^2=0,\overline{4}$	$-\frac{4}{3} ; -\frac{8}{3}$
223	$(x:3)^3+1=-26$	-9	224	$\frac{3x}{x+1}=3$	\emptyset