

## Aufgaben Gleichungssysteme

1.

a) I  $5y - 3x = 1$

II  $x = y + 1$

d) I  $3x = y + 15$

II  $2y - 10 = 2x$

f) I  $\frac{x}{2} - \frac{3y}{5} = 3$

II  $\frac{x}{4} + y = 8$

i) I  $\frac{4}{3x+1} = \frac{2}{3y-13}$

II  $\frac{2}{5x-10} = \frac{4}{7y-6}$

l) I  $\frac{3}{2x-1} - \frac{8}{3y+2} = -\frac{1}{5}$

II  $\frac{5}{2x-1} + \frac{4}{3y+2} = \frac{8}{15}$

2.

a) I  $x + y = a + b$

II  $x - y = a - b$

c) I  $2x + 5y = 2a + 5b$

II  $3x - 4y = 3a - 4b$

e) I  $a^2x + by = a + b$

II  $a^3x + by = a^2 - b$

g) I  $ax - by = a^2 + b^2$

II  $bx + ay = a^2 + b^2$

i) I  $2ax - 3by = 4b - 9a$

II  $3ax - 6by = 6b - 18a$

b) I  $4x + 5y = 32$

II  $y = 5x - 11$

e) I  $2y = 2x - 40$

II  $3x = 10 - 2y$

g) I  $\frac{2x}{15} + \frac{7y}{12} = 3$

II  $\frac{7x}{25} - \frac{5y}{16} = \frac{3}{20}$

j) I  $\frac{7}{x} - \frac{12}{y} = \frac{5}{6}$

II  $\frac{4}{y} + \frac{5}{2} = \frac{9}{x}$

c) I  $15y - 4x = -50$

II  $x = y + 7$

h) I  $\frac{x+5}{y-7} = \frac{4}{3}$

II  $\frac{x+2}{y-5} = \frac{5}{8}$

k) I  $\frac{4}{x} + \frac{8}{y} = \frac{5}{3}$

II  $\frac{2}{x} - \frac{4}{y} = \frac{1}{6}$

m) I  $\frac{7}{2x-5} - \frac{9}{7y+5} = \frac{10}{3}$

II  $\frac{24}{2x-5} + \frac{15}{7y+5} = \frac{19}{3}$

3.

a) I  $3x + 2y - 4z = -2$

II  $4x - 5y + 3z = 9$

III  $8x + 7y - 9z = 13$

I  $\frac{1}{2}x + \frac{1}{4}y + \frac{1}{5}z = 8$

c) II  $\frac{1}{4}x + \frac{1}{8}y - \frac{1}{15}z = \frac{7}{2}$

III  $\frac{1}{10}x + \frac{1}{2}y + \frac{1}{2}z = 13$

I  $2x - 3y + 4z = 8$

b) II  $3x + 4y - 5z = -4$

III  $4x - 6y + 3z = 1$

I  $\frac{1}{2}x - \frac{4}{5}y + \frac{3}{8}z = 4$

d) II  $\frac{3}{4}x + \frac{3}{8}y + \frac{1}{5}z = 23$

III  $\frac{4}{5}x - \frac{1}{2}y + \frac{1}{4}z = 8$