

Wiederholung: Addition/Subtraktion von Bruchtermen

- a) $\frac{7g}{8e^2f} - \frac{h}{6ef^3} + \frac{5e^2g}{12f^2}$
- b) $\frac{2rs}{t^4} - \frac{5s^3}{14r^2t} - \frac{3r^2t}{8s} + \frac{1}{7rt^2}$
- c) $-\frac{2a^2b^3}{15cd^2} + d - ab^2 + \frac{2b}{25c^3}$
- d) $-\frac{5x^2y^4}{6z} - \frac{3}{4xyz^3} + \frac{2y^2}{3xz^2} - x^2$
- e) $\frac{a-2b}{6ab} + \frac{1}{3a} - \frac{a^2c^3+b}{10a^2bc^3}$
- f) $\frac{2r+5s}{5rs^2} - \frac{3+2s}{4rs} + \frac{1}{10s^2}$
- g) $\frac{5k+12}{3m-6n} + \frac{5k}{6m-12n} - \frac{3+4k}{km-2kn}$
- h) $\frac{x+5y+5xy}{25x-15y} - \frac{6y-x-12xy}{30x-18y} + x$
- i) $\frac{3eg}{24f^2g+16f^4} + \frac{e-1}{12g+8f^2} - \frac{e}{8f^2}$
- j) $\frac{1-3y}{16x^3+12x^2y} - \frac{x-y}{4x^2y} + \frac{x-y}{4x^2y+3xy^2}$
- k) $\frac{4a+7b}{3a+2b-5c} + \frac{10a+11b-10c}{5c-3a-2b}$
- l) $\frac{2c}{2a^2b^2-5abc} + \frac{1}{2ab} + \frac{1}{5c-2ab}$
- m) $\frac{5m}{25m^2-30mn+9n^2} - \frac{5m+3n}{25m^2-15mn}$
- n) $\frac{x+5}{2x+3} - \frac{x+4}{2x-3} + \frac{21}{4x^2-9}$
- o) $\frac{2p-1}{10p-6} - \frac{p}{25p^2-9} - \frac{3p+2}{15p+9}$
- p) $\frac{e^2+f^2}{2ef} - \frac{e}{e+f} - \frac{f}{e-f} + \frac{f^3+2ef^2+e^3}{2e^3-2ef^2}$
- q) $\frac{4n^2+16}{n^4-16} - \frac{n}{n+2} + 1$
- r) $\frac{x}{(x-y)(z-x)} + \frac{y}{(x-y)(y-z)} - \frac{z}{(x-z)(z-y)}$
- s) $\frac{a+b}{a+ac^2+2b+2bc^2} - \frac{1}{1-c^4} - \frac{a-b}{a-ac^2+2b-2bc^2} + \frac{ac^2}{a-ac^4+2b-2bc^4}$
- t) $\frac{2x+1}{3x+4y-5z} + \frac{1-2x}{3x-4y+5z} - \frac{12x^2+6x}{9x^2-16y^2+40yz-25z^2}$
- u) $\frac{2a}{a^2+6ab+9b^2} - \frac{3b}{a^2-6ab+9b^2} + \frac{3b-2a}{a^2-9b^2} + \frac{6ab}{(a+3b)(a^2-6ab+9b^2)}$

Ergebnisse:

a)
$$\frac{21f^2g - 4eh + 10e^4fg}{24e^2f^3}$$

c)
$$\frac{-10a^2b^3c^2 + 75c^3d^3 - 75ab^2c^3d^2 + 6bd^2}{75c^3d^2}$$

e)
$$\frac{2a^2c^3 - 3b}{30a^2bc^3}$$

g)
$$\frac{5k^2 - 6}{2k(m - 2n)}$$

i)
$$-\frac{1}{4(3g + 2f^2)}$$

k)
$$-2$$

m)
$$\frac{9n^2}{5m(5m - 3n)^2}$$

o)
$$-\frac{1}{6(5p + 3)}$$

q)
$$\frac{2n}{(n + 2)(n - 2)}$$

s)
$$-\frac{a}{(1 + c)(1 - c)(a + 2b)}$$

u)
$$-\frac{6b}{(a + 3b)^2}$$

b)
$$\frac{112r^3s^2 - 20s^4t^3 - 21r^4t^5 + 8rst^2}{56r^2st^4}$$

d)
$$\frac{-10x^3y^5z^2 - 9 + 8y^3z - 12x^3yz^3}{12xyz^3}$$

f)
$$\frac{2r + s - 2s^2}{4rs^2}$$

h)
$$\frac{11x + 150x^2}{30(5x - 3y)}$$

j)
$$\frac{1 - 3x}{4x^2(4x + 3y)}$$

l)
$$\frac{c}{2ab(5c - 2ab)}$$

n)
$$\frac{2}{3 - 2x}$$

p)
$$\frac{e^2}{2f(e + f)}$$

r)
$$\frac{2z}{(x - z)(y - z)}$$

t)
$$-\frac{4x}{3x - 4y + 5z}$$