

Aufgabe 1

$$5y - 5(3x + y)$$

Aufgabe 2

$$(2x)^2 - 4\left(\frac{x}{2}\right)^2$$

Aufgabe 3

$$(x - 2)(y + 1) - xy + 2y$$

Aufgabe 4

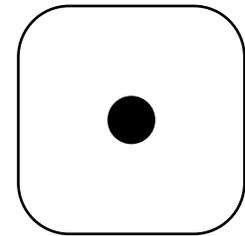
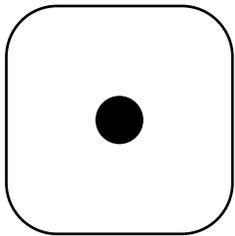
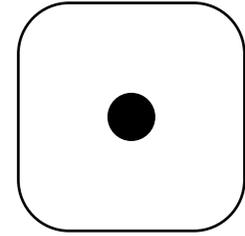
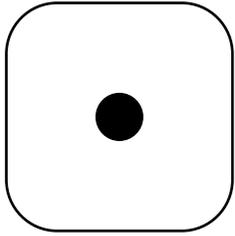
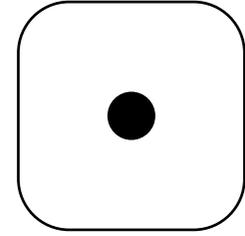
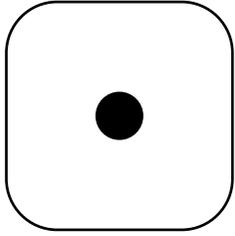
$$3(x^9 + x^6) - 3(x^3)^3$$

Aufgabe 5

$$(4x)^2 + 2(2x - 8x^2)$$

Aufgabe 6

$$4\left(\frac{1}{x^2} + \frac{1}{x}\right) - \left(\frac{2}{x}\right)^2$$



Aufgabe 7

$$y^5 + y^6 - (y^5 - y^6) - (y^2)^3$$

Aufgabe 8

$$(2x)^3 - (x - 2) + (2 + x) - 4$$

Aufgabe 9

$$\left(\frac{x}{y}\right)^3 - \left(\frac{x^3}{y} + \frac{x^3}{y^3} - 2\frac{x^3}{y}\right)$$

Aufgabe 10

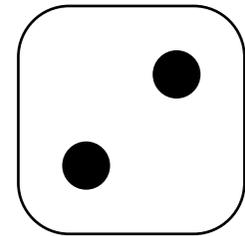
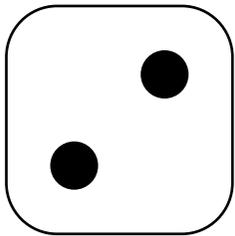
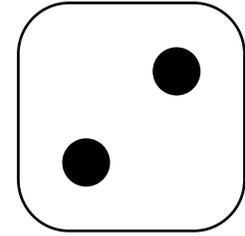
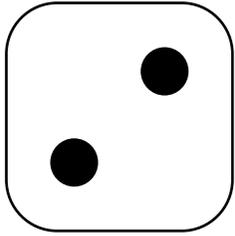
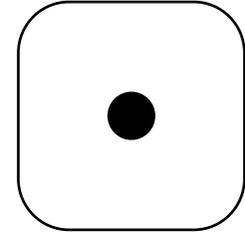
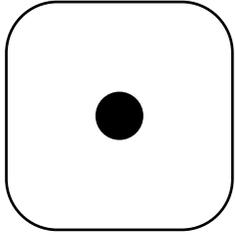
$$81y^8x^4 - (9x^2y^4)^2 + 18y^6x^4$$

Aufgabe 11

$$4y + \left(\frac{y^2}{x^3}\right)^3 + y - 5y$$

Aufgabe 12

$$\left(\frac{x}{2}\right)^2 + \frac{(2x)^2}{4} - \left(\frac{3x}{2}\right)^2$$



Aufgabe 13

$$3x(4 - 2y) - (xy + 12x)$$

Aufgabe 14

$$1 - [x - (y + x - 1)] + y$$

Aufgabe 15

$$(6x - 2y) + (4y - 3x) - (x - 5y)$$

Aufgabe 16

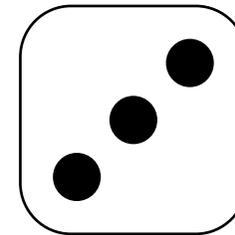
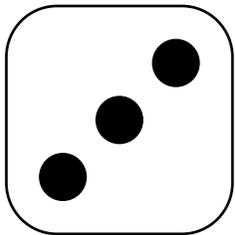
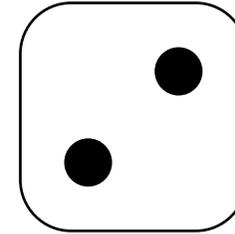
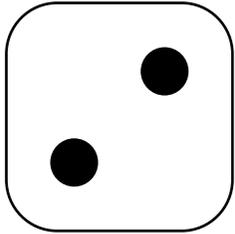
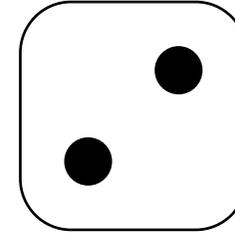
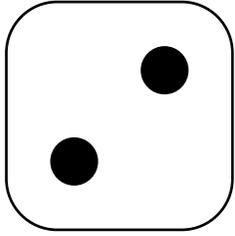
$$20x^2 + (3x + 2)(4 - 6x) - 8$$

Aufgabe 17

$$4[(x^4)^5 + 2(x^3)^3] - 4(x^{10})^2$$

Aufgabe 18

$$x^3(8y^3 + 3) - (2xy)^3 - x^3$$



Aufgabe 19

$$\left(\frac{x}{2}\right)^3 + 4x^3 \left(\left(\frac{y}{2}\right)^2 - \frac{1}{32}\right)$$

Aufgabe 20

$$2(x^2)^4 - [2x^6 - 2x^8 - 2(x^3)^2]$$

Aufgabe 21

$$16yx^2 - [3y^2x^2 + y(4x)^2 - (3yx)^2]$$

Aufgabe 22

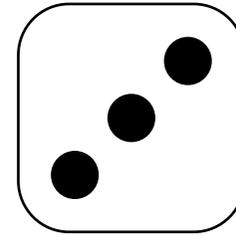
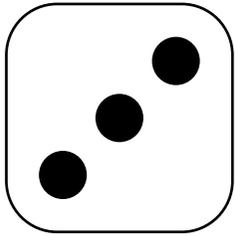
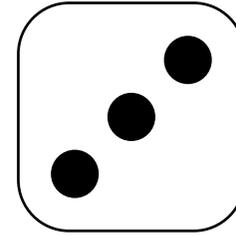
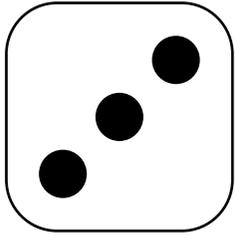
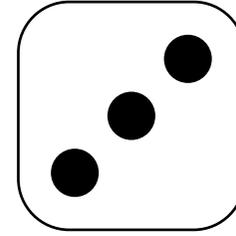
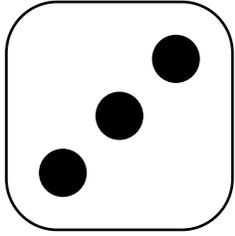
$$\left(\frac{x}{2}\right)^2 - \left(4\left(\frac{x}{4}\right)^2 - \left(\frac{x}{3}\right)^2\right)$$

Aufgabe 23

$$(4x^2)^2 - (4x^4)^2 - 2x^4 + (2x^2)^4$$

Aufgabe 24

$$\left(\frac{1}{x}\right)^6 - \left(\frac{2}{x^3}\right)^2 + \left(\frac{2}{x^2}\right)^3$$



Aufgabe 25

$$30y + 3x - 3(7y + x)$$

Aufgabe 26

$$(3y)^2 - 9\left(\frac{y}{3}\right)^2$$

Aufgabe 27

$$3y + (x - 3)(y + 2) - xy$$

Aufgabe 28

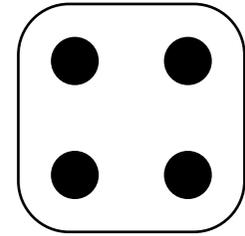
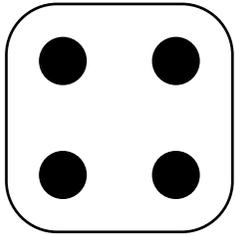
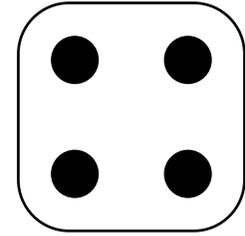
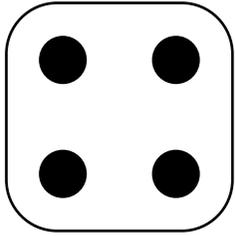
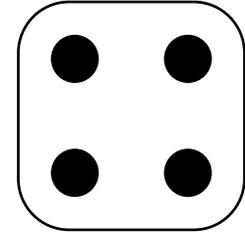
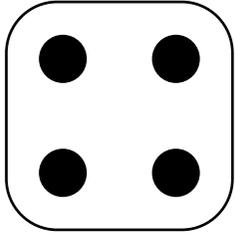
$$4(x^8 + x^{16}) - 4(x^4)^4$$

Aufgabe 29

$$(6y)^2 + 4(4y - 9y^2)$$

Aufgabe 30

$$2\left(\frac{4}{x^3} + \frac{3}{x}\right) - \left(\frac{2}{x}\right)^3$$



Aufgabe 31

$$x^6 - (x^2)^4 - (x^6 - x^8) + x^8$$

Aufgabe 32

$$3 + (x - 4) + (8x)^2 - (x - 1)$$

Aufgabe 33

$$\left(\frac{y}{x}\right)^4 - \left(2\frac{y^4}{x^4} - \frac{y^4}{x} - \frac{y^4}{x^4}\right)$$

Aufgabe 34

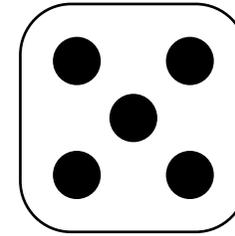
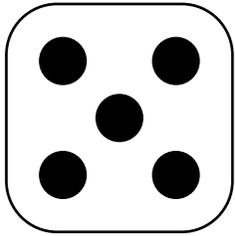
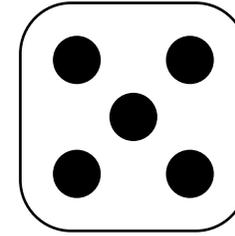
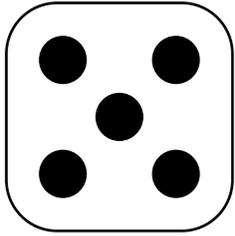
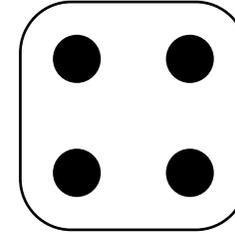
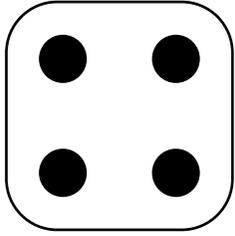
$$72y^6x^5 - (3x^2y^3)^3 + 27y^9x^6$$

Aufgabe 35

$$3x + \left(\frac{x^4}{y^2}\right)^2 - 4x + x$$

Aufgabe 36

$$\left(\frac{5x}{3}\right)^2 - \frac{(4x)^2}{9}$$



Aufgabe 37

$$4y(7x + 5) - (28xy - 24y)$$

Aufgabe 38

$$1 - [2y - (x - y + 1)] - x$$

Aufgabe 39

$$(3y - x) - (7x - 4y) + (12x - 7y)$$

Aufgabe 40

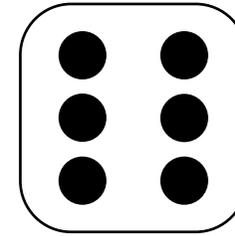
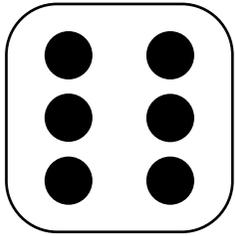
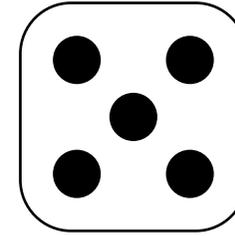
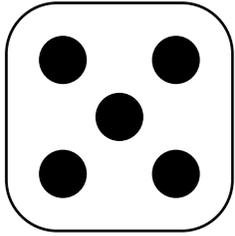
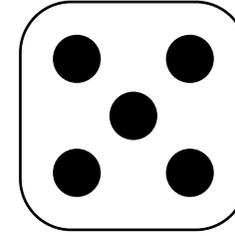
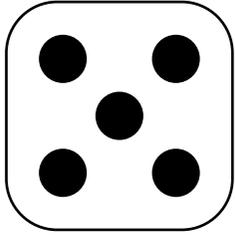
$$12x^2 + (6 - 3x)(4x + 8) - 8$$

Aufgabe 41

$$3[2(x^2)^2 - (x^2)^9] + 3(x^6)^3$$

Aufgabe 42

$$(yx)^5 - x^5(5 + y^5) + 6x^5$$



Aufgabe 43

$$9y^2 \left(\left(\frac{x}{3} \right)^2 + \frac{1}{36} \right) - \left(\frac{y}{2} \right)^2$$

Aufgabe 44

$$3x^{10} - [3(x^3)^3 + 3(x^2)^5 + 3x^9]$$

Aufgabe 45

$$27x^3y^3 - [2xy^3 + (3xy)^3 - x(2y)^3]$$

Aufgabe 46

$$\left(\frac{y}{3} \right)^2 - \left(9 \left(\frac{y}{9} \right)^2 - \left(\frac{y}{6} \right)^2 \right)$$

Aufgabe 47

$$8(x^3)^5 - 2x^6 - (2x^5)^3 + (3x^3)^2$$

Aufgabe 48

$$\left(\frac{1}{x} \right)^8 - \left(\frac{2}{x^2} \right)^4 + \left(\frac{5}{x^4} \right)^2$$

