
Algebra-Repetition von Kenntnissen aus der 2. Klasse

1 $38a + 17b - 14a - 3b + a - b =$ _____

2 $15p + 40q - 10p - 30q + 6p - q =$ _____

3 $16a + 19b - 3a + b - 7a - 8b + b =$ _____

4 $15r + 29s - 6r - 18s + 7r + 5s - 8r + s =$ _____

5 $5x^2 \cdot 5x =$ _____

9 $60m^2n^2 : 12mn =$ _____

6 $15xy \cdot 3z =$ _____

10 $60m^2n^2 : 12m^2 =$ _____

7 $15xy \cdot 3x =$ _____

11 $60m^2n^2 : 12mn^2 =$ _____

8 $15xy \cdot 3xy =$ _____

12 $60m^2n^2 : 12m^2n^2 =$ _____

13 $x \cdot x \cdot x \cdot x \cdot x =$ _____

17 $2x^2 \cdot 3y \cdot 4z =$ _____

14 $z^2 \cdot z^4 =$ _____

18 $2a \cdot 5b^2 \cdot 6c =$ _____

15 $(3x)^2 =$ _____

19 $11r^2 \cdot 4s \cdot 5t^2 =$ _____

16 $(2y)^3 =$ _____

20 $4p \cdot 7q^2 \cdot 6r^3 =$ _____

21 $\frac{36ab}{24ac} =$ _____

29 $\frac{1}{13xy} \cdot 13y =$ _____

22 $\frac{54pq}{18qr} =$ _____

30 $100u \cdot \frac{11u}{10t} =$ _____

23 $\frac{15m^2n}{25m} =$ _____

31 $\frac{15ab}{4} : 3b =$ _____

24 $\frac{18x^2y}{24xy^2} =$ _____

32 $\frac{3u}{4v} : 5w =$ _____

25 $\frac{36st^2}{48s^2t} =$ _____

33 $\frac{abc}{d} \cdot \frac{ad}{c} =$ _____

26 $\frac{42u^2v^2}{56uv} =$ _____

34 $\frac{x^2}{y} \cdot \frac{xy}{z} =$ _____

27 $3x \cdot \frac{2}{y} =$ _____

35 $\frac{xy}{z} \cdot \frac{xz}{y} =$ _____

28 $\frac{b}{2c} \cdot d =$ _____

36 $\frac{rs^2}{t} \cdot \frac{r^2}{st} =$ _____

1

$4a^2 + 5a + a^3 + 2a^2 + a^3 + 7a + 6a^2 =$ _____

2

$7c^2 + 19d + 3c + 4d + 8c^2 + 25c + 16 =$ _____

3

$3a^2b \cdot 4ab^3 \cdot 5b^2 =$ _____

4

$a^3 \cdot 6a^2 \cdot 7b \cdot 2a^2 \cdot 5b^2 \cdot 3 =$ _____

5

$(12a^3b^2)^2 =$ _____

6

$(3ef^2g)^3 =$ _____

7

$3p^2q \cdot 5pq^2 \cdot 2p \cdot 4q^2 \cdot 5 =$ _____

8

$39c^3d^4 : 13c^2d^3 =$ _____

9

$52c^5d^3 : 4cd^3 =$ _____

10

a) $3^4 + 5 \cdot (6^7 \cdot 8^9 + 10^{11}) =$ _____

b) $3^4 + 5 \cdot (6^7 \cdot 8^9 + 10^{11}) + 10^9 - 8^7 + 6^5 - 5^4 + 3^2 - 1 =$ _____

11

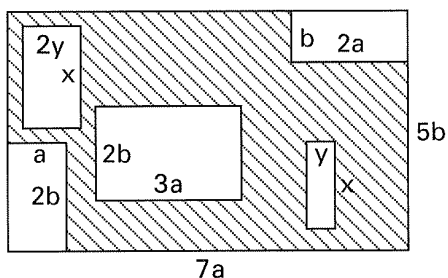
Was stellt der Term dar, wenn die Variablen Streckenlängen bedeuten?

a) $2a + 3b \rightarrow$ _____

b) $5p \cdot 6q \rightarrow$ _____

c) $7x \cdot y \cdot 8z \rightarrow$ _____

12



Welcher Term beschreibt die schraffierte Fläche?

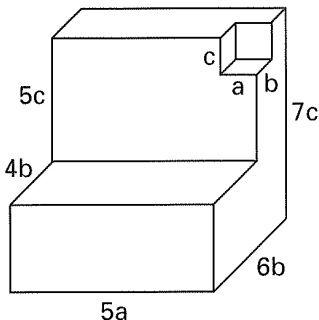
A = _____

13

Quader: $O = 2(ab + ac + bc)$

	a)	b)
Kante a	11 cm	3,4 m
Kante b	17 cm	5 dm
Kante c	23 cm	2,9 dm
O	cm ²	dm ²
V	dm ³	dm ³

14



O = _____

V = _____

1

$14a^2 + 15a + 3a^3 + 2a^2 + a^3 + 7a + 6a^2 =$ _____

2

$17c^2 + 19d + 13c + 24d + 8c^2 + 25c + 16 =$ _____

3

$13a^2b^2 \cdot 14a^2b^3 \cdot 15b^2 =$ _____

4

$a^3 \cdot 6a^2 \cdot 7b^3 \cdot 12a^2 \cdot 5b^2 \cdot 3 =$ _____

5

$(16a^3b^4)^2 =$ _____

6

$(13e^2f^3g)^3 =$ _____

7

$3p^2q \cdot 15pq^2 \cdot 2p^2 \cdot 14q \cdot 5 =$ _____

8

$76c^4d^3 : 19c^3d^3 =$ _____

9

$152c^5d^3 : 4cd =$ _____

10

a) $11u^3v^2 \cdot 14u^2v^3 + 11uv^4 =$ _____

b) $119e^4f^3 + 7e^2f^3 : 7e^2f^3 =$ _____

11

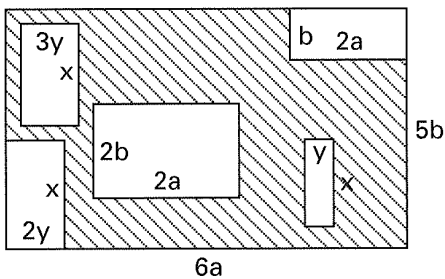
Was stellt der Term dar, wenn die Variablen Streckenlängen bedeuten?

a) $6r + 4s - 5t \rightarrow$ _____

b) $2 \cdot (3u \cdot 7v) \rightarrow$ _____

c) $5 \cdot (2x \cdot 9y \cdot z) \rightarrow$ _____

12



Welcher Term beschreibt die schraffierte Fläche?

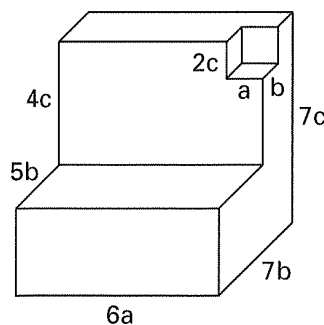
A = _____

13

Quader: $O = 2(ab + ac + bc)$

	a)	b)
Kante a	11 m	3,4 m
Kante b	17 dm	5,1 dm
Kante c	23 cm	2,9 dm
O	_____ dm ²	_____ dm ²
V	_____ m ³	_____ dm ³

14



O = _____

V = _____

1

a) $(-2)(+3)(-4)(+5)(-6) =$ _____

b) $(-2a)3a^2(-4a^2)(5a)^2 =$ _____

c) $(-3x)^2x^2(-2x)^2(5x^2) =$ _____

d) $(5y)^2y^3(-3y)^34y^2 =$ _____

2

a) $\left(-\frac{8}{7}\right) \cdot \left(-\frac{7}{24}\right) =$ _____

b) $\left(-\frac{2}{5}\right) \cdot 2\frac{1}{2} =$ _____

c) $\left(-\frac{3}{4}\right)^3 =$ _____

d) $\left(-1\frac{2}{3}\right)^4 =$ _____

3

a) $(-3x^2)(2x^3)(-x)^3 =$ _____

b) $(-3y)^22y^3(-y^2) =$ _____

c) $(2z^3)(-3z)^2(-2z)^3 =$ _____

d) $3w^2(-2w)^3(3w)^3 =$ _____

4

a) $3x(2x^2 + 3x - 4) =$ _____

b) $(5a^2 - 2a + 3)(-2a^2) =$ _____

c) $(-a^2)3 - 2a + 5(-2a^2) =$ _____

d) $(-3xy)(-2x^2 + 5xy - 7y^2) =$ _____

5

a) $3x(x - 2y) + 2y(3x + y) =$ _____

b) $-5a(a^2 - b) - b(2a - 3b^2) =$ _____

c) $2v^2(3v - 2w^2) - 3w^2(2w - v^2) =$ _____

d) $(-4p^3)(p - 7q) + 3q^2(5p - 2) =$ _____

6

a) $2p(3p - 4q) - 5(p^2 + pq) - q(3p + q) =$ _____

b) $5r(4s - r) - 3s(2r - 9s) + 7(4r^2 - 5s^2) =$ _____

c) $3a^2(2a + b) + 8(a^3 - 2b^3) - 2b^2(a - 4b) =$ _____

d) $(-8x^2)(3x - 4y) + xy(3y - x) - 3y^2(2x + 5y) =$ _____