Englische Übungen zu Terme

1. Write an expression for the following statements. Let the unknown number be n.

a. subtract 5 from a number

b. add 6 to a number

c. multiply a number by 9

d. divide a number by 8

e. multiply a number by 5 and then add 4

f. multiply a number by 6 and then subtract 3

g. add 4 to a number and then multiply by 3

h. subtract 3 from a number and then multiply by 4

2. Write a word description for the term.

a. $(a + b) : 21$

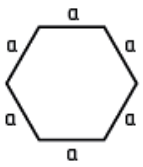
b. $\frac{15}{x-y}$

c. $(u \cdot v)^2$

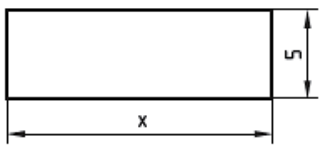
3. Write a formula for the total animal weight w of a cat weighing c kg, a dog weighing 20 kg and x chicken weighing 1.5 kg.

4. Give the formula of the perimeter p of the shape!

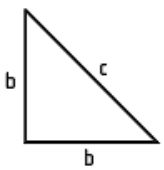
a)



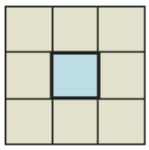
b)



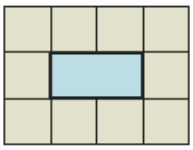
c)



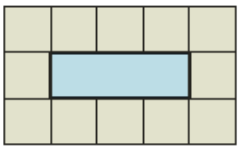
5. A gardener made ponds. They were all 1 m wide but of different lengths. She put paving stones around the edge. She wanted to know if there was a formula for the number of paving stones. Draw some more ponds that are 1 m wide. Fill in the table below. Try to find a formula that calculates the number of paving stones N for a pond of length L.



1 m x 1 m pond



1 m x 2 m pond



1 m x 3 m pond

Length of Pond L	1	2	3	4	5	6	7	8
Number of Paving Stones N	8	10	12					

6. Simplify.

a. $2x(x-1)-(2x+1)^2=$

b. $(y-1)(y+4)-(y+2)^2=$

c. $(z-1)(2z-3)+(z-1)(2z+3)=$

d. $\frac{(m^5n^3)^2}{(-m^2n)^3}=$

7. Fill in the gaps.

a. $10x^2-5x=$ _____ $\cdot\,(\,2x-$ _____$)$

b. $(3k-4g)^2=$ _____ $+16g^2$

c. $(2r$ __ _____$)^2=$ _____ $-20rs$ __ _____

d. $\frac{a^3}{12}+\frac{3a^2}{4}-\frac{5a}{8}=$ _____ $\cdot\left(\frac{a^2}{3}+\right.$ _____$\left.\right)$

Vocabulary

Englisch	Deutsch
expression	Ausdruck
formula	Formel
total weight	Gesamtgewicht
to weigh	wiegen
perimeter	Umfang
shape	Figur
gardener	Gärtner/in
pond	Teich
paving stones	Pflastersteine

Solutions

1.

a. $n - 5$
b. $n + 6$
c. $9n$
d. $\frac{n}{8}$
e. $5n + 4$
f. $6n - 3$
g. $(n + 4) \cdot 3$
h. $(n - 3) \cdot 4$

2.

a. The sum of a and b divided by 21.
b. 15 is divided by the difference of x and y.
c. The square of u times v.

3. w = c + 20 + x · 1.5

4.

a. p = 6a
b. p = 2x +10
c. p = a + b + c

5. $N = 2 \cdot (3 + L)$

L	1	2	3	4	5	6	7	8
N	8	10	12	14	16	18	20	22

6.

a. $-2x^2 + 2x + 1$
b. $-y - 8$
c. $4z^2 - 4z$
d. $-m^4n^3$

7.

a. $5x \cdot (2x - 1)$
b. $9k^2 - 24\,kg + 16\,g^2$
c. $(2r - 5s)^2 = 4r^2 - 20rs + 25s^2$
d. $\frac{a}{4}\left(\frac{a^2}{3} + 3a - \frac{5}{2}\right)$