Englische Übungen zu Terme

1. Factorise.

a. $5y + 10 =$

b. $8q - 16p =$

c. $10a^2 - 5a =$

d. $x^3 + x^2 - 4x =$

2. One of these expressions is not a correct factorisation of $36x - 24$.

Which one is it?

O **A** $12(3x - 2)$

O **B** $6(6x - 4)$

O **C** $4(9x - 24)$

O **D** $4(9x - 6)$

O **E** $3(12x - 8)$

3. Find possible solutions.

a. The perimeter of a rectangle is $8x + 16y$. What are the lengths of its sides?

b. The area of a rectangle is $8x^2 + 16x$. What are the lengths of its sides?

4. Simplify. Find the domain of the variable x.

a. $\frac{3x}{x^2-4x+4} - \frac{2}{x-2} =$

b. $\frac{2x}{x+3} : \frac{x}{x^2-9} - \frac{2x^2}{x-1} =$

5. Find two pairs of matching expressions. Choose two colours to draw matching circles. Which expression cannot be matched?

$\frac{x}{4} - \frac{y}{3}$ $\frac{4}{x} + \frac{3}{x}$ $\frac{7}{x^2}$ $\frac{3x-4y}{12}$ $\frac{7}{x}$

Vocabulary

Englisch	Deutsch
to factorise	faktorisieren, zerlegen
factorisation	Faktorisierung, Zerlegung in ein Produkt
rectangle	Rechteck
perimeter	Umfang
area	Fläche
to match	zusammenpassen, übereinstimmen

Solutions

1.

a. $5y + 10 = 5(y + 2)$

b. $8q - 16p = 8(q - 2p)$

c. $10a^2 - 5a = 5a(2a - 1)$

d. $x^3 + x^2 - 4x = x(x^2 + x - 4)$

2. C

3. Possible solutions are

a. $a = 4x, b = 8y$ (Others are possible, too, e.g., $a = x, b = 3x + 8y, \ldots$)

b. $a = 8x, b = x + 2$ (Others are possible, too, e.g., $a = 4x, b = 2(x + 2), \ldots$)

4.

a. $\frac{x+4}{(x-2)^2}$

b. $\frac{6-8x}{x-1}$

5. The pairs are $\frac{x}{4} - \frac{y}{3}$ and $\frac{3x-4y}{12}$ as well as $\frac{4}{x} + \frac{3}{x}$ and $\frac{7}{x}$.

$\frac{7}{x^2}$ cannot be matched.