

Name: _____

Pkte.:47/___

Note:_____

Wähle zwischen A (einfacher) und B (anspruchsvoller).

Mit allen A - Beispielen kannst du höchstens ein Befriedigend erreichen!

Notenschlüssel: Sehr Gut (43-47), Gut (36-42), Befriedigend (28-35), Genügend (23-27)

1A

Determine the Definition quantity and simplify as far as possible! $G=R$

$$\frac{4x(x+2)}{2(x-1)(x+2)} =$$

6

1B

Determine the Definition quantity (transform into products) and simplify as far as possible! $G=R$

10

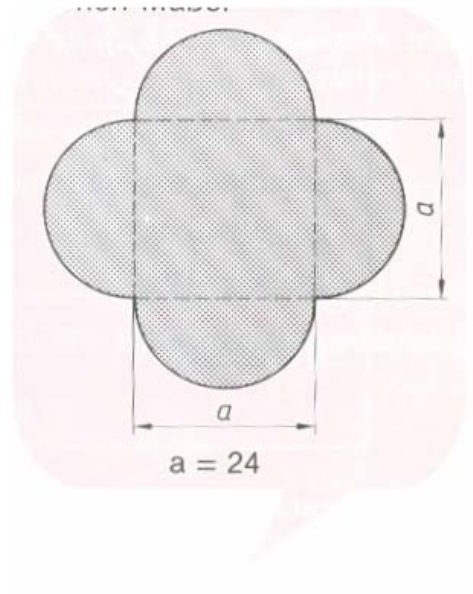
$$\frac{x^2 + 3xy}{2x(x^2 - 9y^2)} =$$



2A

Berechne den Flächeninhalt!
Calculate the area !

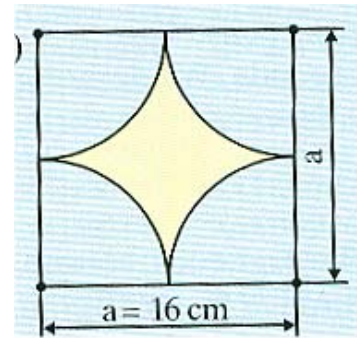
6



2B

Berechne Flächeninhalt und Umfang!
Calculate area and circumference!

12



3A

Find the common denominator (transform into products) and simplify as far as possible.

Determine the definition quantity for $G=\mathbb{R}$!

10

$$\frac{3}{3+x} + \frac{x}{3-x} - \frac{2x^2}{9-x^2} =$$



3B

Find the common denominator (transform into products) and simplify as far as possible.

Determine the definition quantity for $G=\mathbb{R}$!

$$\frac{x-y}{x+y} + \frac{x+y}{x-y} - \frac{x^2+3y^2}{x^2-y^2} =$$

12



4A

Transform into products (use the binominal formulas)!

a) $16x^2 - y^2 =$

b) $x^2 - 14x + 49 =$

c) $25x^4 - 10x^2y + y^2 =$

3

4B

Transform into products (use the binominal formulas)!

a) $100x^3y - 25xy =$

b) $64x^4 - 9y^{10} =$

c) $25x^4 - 10x^2y + y^2 =$

4



<u>5A</u> 4	<i>Geg.: Kreissektor</i> $r = 48\text{cm}$ $\alpha = 63^\circ$ <i>Ges.:</i> <i>Area(round the result without comma)</i>
<u>5B</u> 9	<i>Geg.: Sector</i> $A = 120\text{cm}^2$ $r = 12\text{cm}$ $\alpha, b(\text{calculate with pc – results})$
<u>Z1</u> 1	Zusatzpunkte Welchen Wert darf der Nenner eines Bruchterms nie annehmen?
<u>Z2</u> 1	Nenne Flächen- und Umfangsformel des Kreisrings:
<u>Z3</u> 1	Nenne die drei binomischen Formeln:

