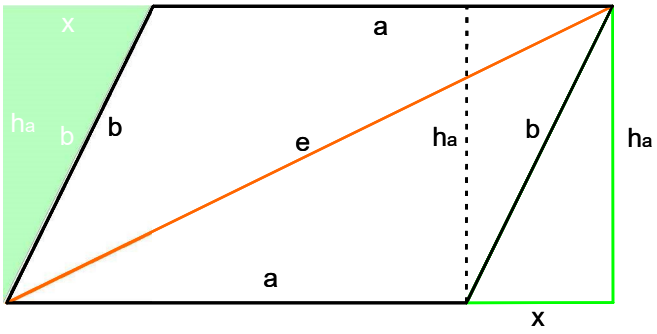
Parallelogramm



1. Angabe

a = 5cm

b = 3cm

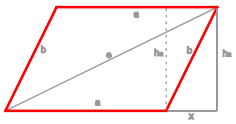
ha = 2,6cm

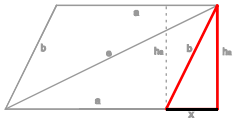
x = 1,5cm

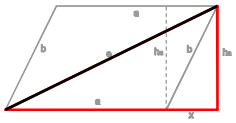
e = 7cm

u = 16cm

A = 13cm²







Berechnung von u und A

u = 2 * (a + b) = 2 * (5 + 3) = 16cm

A = a * ha = 5 * 2,6 = 13cm²

Berechnung von x, Dreieck: b, ha, x

$x^2 = b^2 - h_a^2 \rightarrow x = \sqrt{b^2 - h_a^2} = \sqrt{3^2 - 2{,}6^2} = 1{,}5\text{cm}$

Berechnung von e, Dreieck: e, ha, a + x

$e^2 = (a+x)^2 + h_a^2 \rightarrow e = \sqrt{(a+x)^2 + h_a^2} =$

$= \sqrt{6{,}5^2 + 2{,}6^2} = 7\text{cm}$

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2. Angabe

a = 6,4cm

b = 4cm

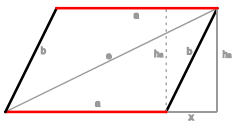
ha = 3,5cm

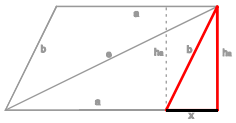
x = 1,94cm

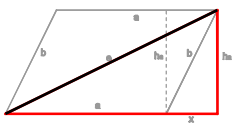
e = 9cm

u = 20,8cm

A = 22,4cm²







Berechnung von b

u = 2 * (a + b) = 2a + 2b → b = (u - 2a) / 2 =

= (20,8 - 12,8) / 2 = 4cm

Berechnung von ha

A = a * ha → ha = A / a = 22,4 / 6,4 = 3,5cm

Berechnung von x, Dreieck b, x, ha

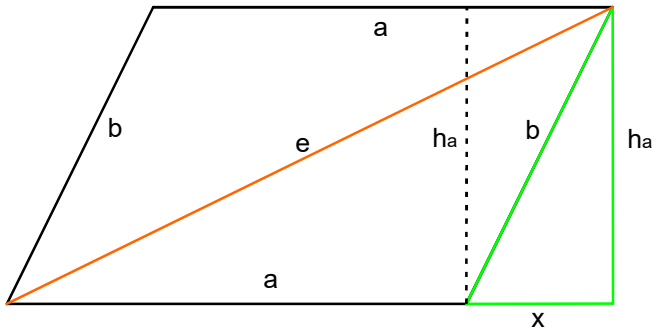
$x^2 = b^2 - h_a^2 \rightarrow x = \sqrt{b^2 - h_a^2} = \sqrt{4^2 - 3{,}5^2} = 1{,}94\text{cm}$

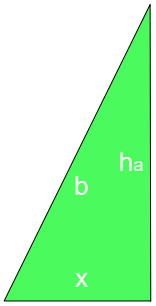
Berechnung von e, Dreieck: e, ha, (a + x)

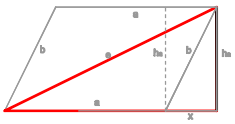
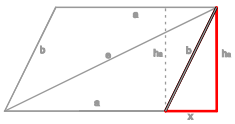
$e^2 = (a+x)^2 + h_a^2 \rightarrow e = \sqrt{(a+x)^2 + h_a^2} =$

$= \sqrt{8{,}34^2 + 3{,}5^2} = 9\text{cm}$

Parallelogramm





		3. Angabe	Ergebnisse
Berechnung von h_a, Dreieck h_a, (a+x), e		**a = 5cm**	a = 5cm
		b =	b = 3cm
Berechnung von A		h_a =	h_a = 2,6cm
Berechnung von b, Dreieck: b, h_a, x		**x = 1,5cm**	x = 1,5cm
		e = 7cm	e = 7cm
Berechnung von u,		u =	u = 16cm
		A =	A = 13cm²

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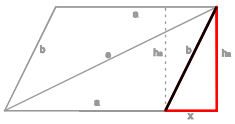
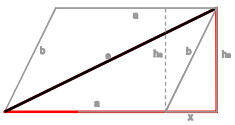
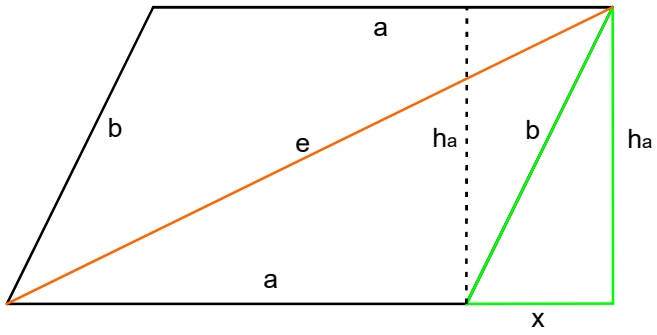
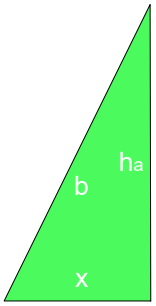
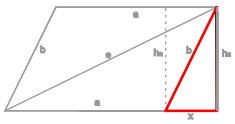
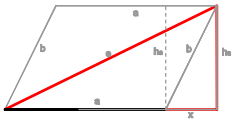
		4. Angabe	Ergebnisse
Berechnung von h_a		**a = 6,4cm**	**a = 6,4cm**
Berechnung von b, Dreieck b, h_a, x		b =	b = 4cm
		h_a =	h_a = 3,5cm
Berechnung von u		**x = 1,94cm**	x = 1,94cm
		e =	e = 9cm
Berechnung von e, Dreieck: e, h_a, (a + x)		u =	**u = 20,8cm**
		A = 22,4cm²	**A = 22,4cm²**

Parallelogramm





		5. Angabe	Ergebnisse
Berechnung von h_a, Dreieck: b, h_a, x		a =	**a = 5cm**
		b = 3cm	**b = 3cm**
Berechnung von a, Dreieck: e, h_a, (a + x)		h_a =	**h_a = 2,6cm**
		x = 1,5cm	x = 1,5cm
Berechnung von A		**e = 7cm**	e = 7cm
Berechnung von u		u =	u = 16cm
		A =	A = 13cm²

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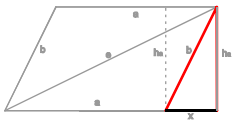
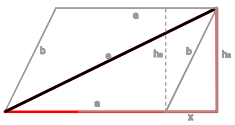
		6. Angabe	Ergebnisse
Berechnung von a		a =	**a = 6,4cm**
Berechnung von h_a, Dreieck b, x, h_a		**b = 4cm**	b = 4cm
		h_a =	h_a = 3,5cm
Berechnung von A		**x = 1,94cm**	x = 1,94cm
Berechnung von e, Dreieck: e, h_a, a + x		e =	e = 9cm
		**u = 20,8cm**	**u = 20,8cm**
		A =	**A = 22,4cm²**