

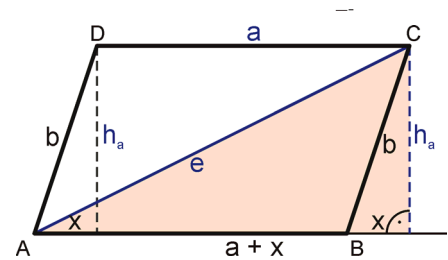
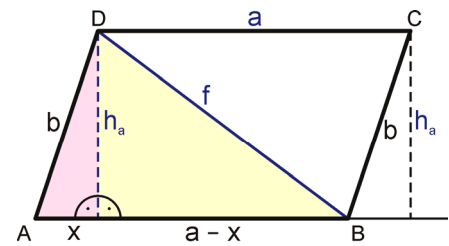
Satz des Pythagoras bei Vierecken Lösungen

1. a) $x = \sqrt{b^2 - h_a^2}$

b) $f = \sqrt{h_a^2 + (a-x)^2}$

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

d) $x = \sqrt{17^2 - 15^2} = 8 \text{ cm}$ $f = \sqrt{15^2 + (28-8)^2} = 25 \text{ cm}$

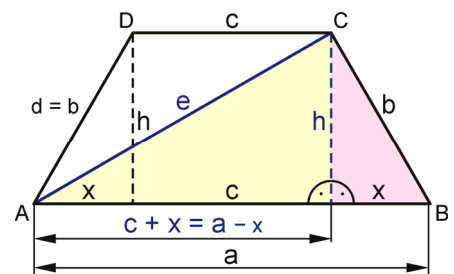


$e = \sqrt{15^2 + (28+8)^2} = 39 \text{ cm}$

2. a) $x = \sqrt{b^2 - h^2}$

b) $e = \sqrt{h^2 + (c+x)^2}$ oder $e = \sqrt{h^2 + (a-x)^2}$

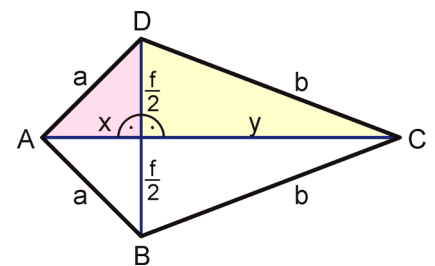
c) $x = 16 \text{ cm};$ $e = \sqrt{30^2 + 40^2} = 50 \text{ cm}$



3. a) $x = \sqrt{a^2 - (\frac{f}{2})^2};$ $y = \sqrt{b^2 - (\frac{f}{2})^2};$

$e = x + y = \sqrt{a^2 - (\frac{f}{2})^2} + \sqrt{b^2 - (\frac{f}{2})^2}$

b) $x = 10 \text{ cm};$ $y = 32 \text{ cm};$ $e = 10 + 32 = 42 \text{ cm}$



4. a) $e = 2 \cdot \sqrt{a^2 - (\frac{f}{2})^2}$

b) $e = 2 \cdot 45 = 90 \text{ cm}$

