Trapez 1

A-B-C-D = Vinkler

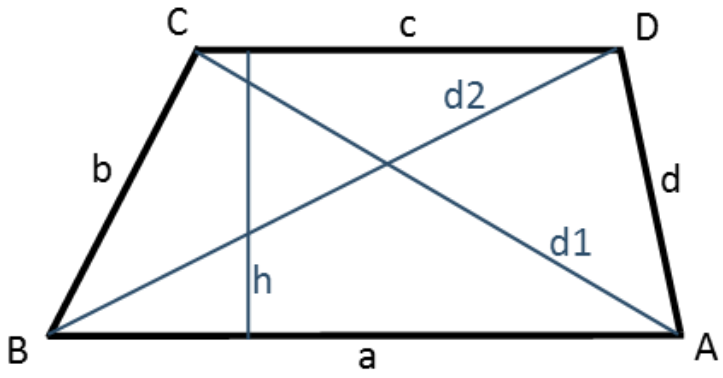
a-b-c-d = Sider

h = Højde

d1-d2 = Diagonaler

O = Omkreds

Areal = Areal



Side a

$$a = \frac{2 \cdot Areal}{h} - c \qquad a = O - (b + c + d) \qquad a = c + h \cdot \left(\frac{1}{\tan(A)} + \frac{1}{\tan(B)}\right)$$

Side b

$$b = \frac{h}{\sin(B)} \qquad b = O - (a + c + d)$$

Side c

$$c = a - h \cdot \left(\frac{1}{\tan(A)} + \frac{1}{\tan(B)}\right) \qquad c = O - (a + b + d)$$

Side d

$$d = \frac{h}{\sin(A)} \qquad d = O - (a + b + c)$$

Trapez 2

Vinkel A

$$A = \sin^{-1}\frac{h}{d} \qquad A = \cos^{-1}\left(\frac{d^2 + a^2 - {d_2}^2}{2 \cdot d \cdot a}\right) \qquad A = 180 - D$$

Vinkel B

$$B = \sin^{-1}\frac{h}{b} \qquad B = \cos^{-1}\left(\frac{b^2 + a^2 - {d_1}^2}{2 \cdot b \cdot a}\right) \qquad B = 180 - C$$

Vinkel C

$$C = 90 + \cos^{-1}\left(\frac{h}{b}\right) \qquad C = \cos^{-1}\left(\frac{c^2 + b^2 - {d_2}^2}{2 \cdot c \cdot b}\right) \qquad C = 180 - B$$

Vinkel D

$$D = 90 + \cos^{-1}\left(\frac{h}{d}\right) \qquad D = \cos^{-1}\left(\frac{c^2 + d^2 - {d_1}^2}{2 \cdot c \cdot d}\right) \qquad D = 180 - A$$

Diagonal 1

$$d_1 = \sqrt{a^2 + b^2 - 2 \cdot a \cdot b \cdot \cos(B)} \qquad d_1 = \sqrt{c^2 + d^2 - 2 \cdot c \cdot d \cdot \cos(D)}$$

Diagonal 2

$$d_2 = \sqrt{a^2 + d^2 - 2 \cdot a \cdot d \cdot \cos(A)} \qquad d_2 = \sqrt{b^2 + c^2 - 2 \cdot b \cdot c \cdot \cos(C)}$$

Vinkler skrives altid med store bogstaver og sider med små bogstaver.

Trapez 3

Højde

$h = \sin(B) \cdot b$ $h = \sin(A) \cdot d$ $h = \sin(D) \cdot d$ $h = \sin(C) \cdot b$

$$h = \frac{2 \cdot Areal}{a + c}$$

$$h = \sqrt{d_1^2 - \left(a - (b \cdot \cos(B))\right)^2} \qquad h = \sqrt{d_2^2 - \left(a - (d \cdot \cos(A))\right)^2}$$

Omkreds og Areal

$$O = a + b + c + d \qquad O = a + c + \frac{h}{\sin(A)} + \frac{h}{\sin(B)}$$

$$Areal = \frac{(a + c) \cdot h}{2}$$

Vinkler skrives altid med store bogstaver og sider med små bogstaver.