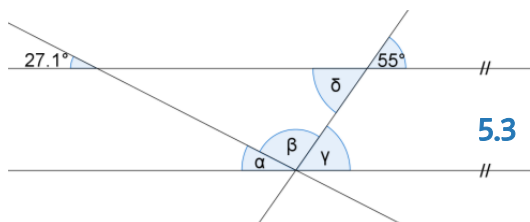


5 Winkelfunktionen

Englische Aufgaben

- 5.1** Give the names of the quadrangles with
- all angles equal.
 - opposite angles equal.
 - all sides the same length.
 - both pairs of opposite sides parallel.

- 5.2** Calculate each of the lettered angles.



5.3

- 5.4** Calculate the missing sides and angles of the triangle and additionally, its area.

- $c = 45\text{mm}$ $h_c = 17\text{mm}$ $\alpha = 35.25^\circ$
- $b = 70.2\text{cm}$ $c = 85.9\text{cm}$ $\gamma = 74^\circ$

- 5.5** Calculate the missing sides, angles and diagonals as well as the area of the given figure.

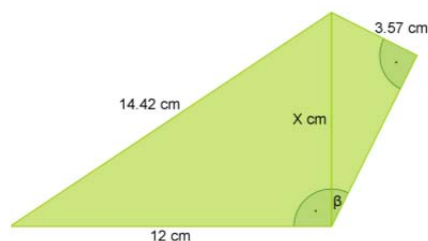
- parallelogram: $b = 35\text{mm}$ $h_a = 20\text{mm}$ $e = 125\text{mm}$
- trapezoid: $a = 150\text{cm}$ $b = 76\text{cm}$ $\beta = 40.1^\circ$ $\delta = 112.4^\circ$

- 5.6** The height of a look-out located on top of a hill shall be calculated. Therefore, a straight line $\overline{AB} = 160\text{m}$ is chosen in the same vertical plane as the look-out. From point A elevation angles $\alpha_1 = 20.12^\circ$ and $\alpha_2 = 20.64^\circ$ are measured to the base and the top of the look-out, respectively. The elevation angle from B to the base of the tower is $\beta = 21.25^\circ$.

- Calculate the height of the look-out.
- Calculate the height of the hill.

[look-out ... Aussichtsturm; elevation angle ... Höhenwinkel; vertical plane ... Vertikalebene; base ... Fußpunkt]

- 5.7** Work out the length of the line marked x and calculate the size of the angle marked β .



- 5.8** Calculate the missing sides, angles and diagonals as well as the area of the given figure.

- parallelogram: $b = 35\text{mm}$ $h_a = 20\text{mm}$ $e = 125\text{mm}$
- trapezoid: $a = 150\text{cm}$ $b = 76\text{cm}$ $\beta = 40.1^\circ$ $\delta = 112.4^\circ$

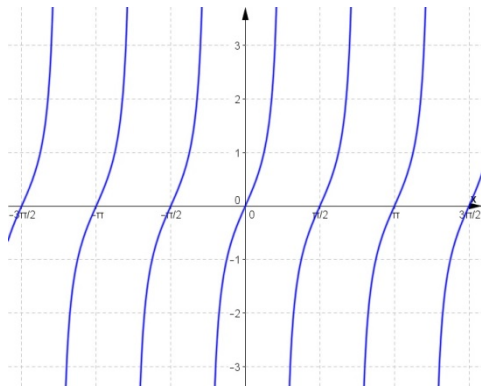
5 Winkelfunktionen

Englische Aufgaben

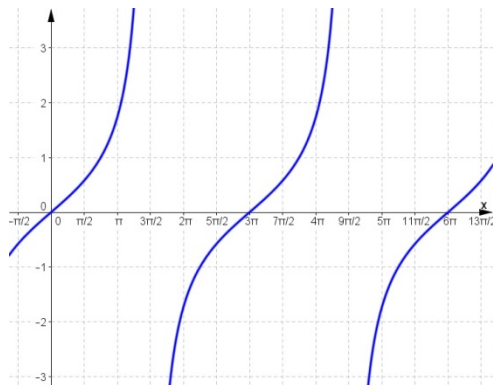
5.9 Specify the trigonometric function shown in the graph below.

[to specify sth. ... etwas detailliert angeben]

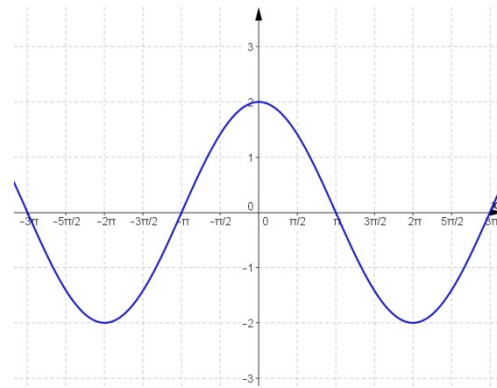
a.



c.



b.



d.

