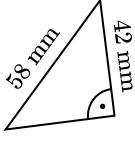
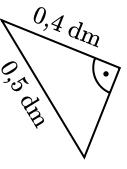
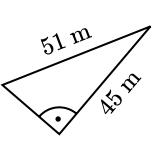
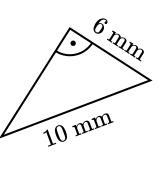
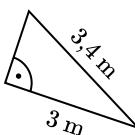
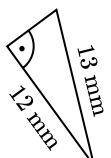
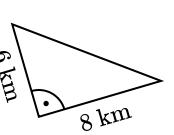
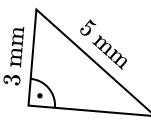
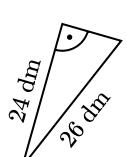
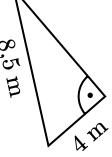
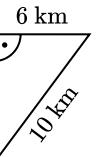
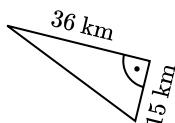
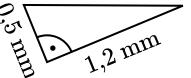
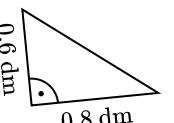
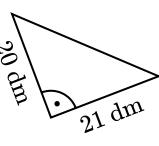
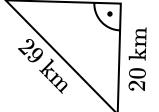
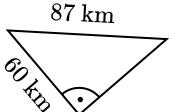
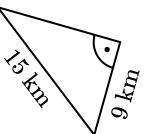
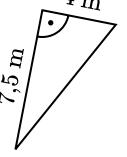
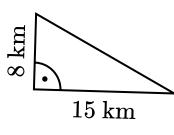
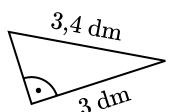
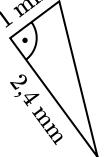
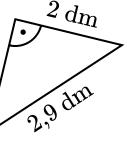
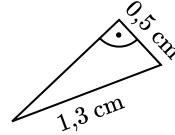
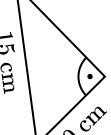


Satz des Pythagoras

Aufgabe

Berechnen Sie die jeweils fehlende Dreiecksseite mit Hilfe des Satzes von Pythagoras:

- a)  A right triangle with a vertical leg of 5 mm and a horizontal leg of 42 mm. The right angle is at the top-left vertex.
- b)  A right triangle with a vertical leg of 0,4 dm and a horizontal leg of 0,5 dm. The right angle is at the top-left vertex.
- c)  A right triangle with a vertical leg of 51 m and a horizontal leg of 45 m. The right angle is at the top-left vertex.
- d)  A right triangle with a vertical leg of 6 mm and a horizontal leg of 10 mm. The right angle is at the top-left vertex.
- e)  A right triangle with a vertical leg of 3,4 m and a horizontal leg of 3 m. The right angle is at the top-left vertex.
- f)  A right triangle with a vertical leg of 13 mm and a horizontal leg of 12 mm. The right angle is at the top-left vertex.
- g)  A right triangle with a vertical leg of 6 km and a horizontal leg of 8 km. The right angle is at the top-left vertex.
- h)  A right triangle with a vertical leg of 8 cm and a horizontal leg of 15 cm. The right angle is at the top-left vertex.
- i)  A right triangle with a vertical leg of 3 mm and a horizontal leg of 5 mm. The right angle is at the top-left vertex.
- j)  A right triangle with a vertical leg of 24 dm and a horizontal leg of 26 dm. The right angle is at the top-left vertex.
- k)  A right triangle with a vertical leg of 8,5 m and a horizontal leg of 4 m. The right angle is at the top-left vertex.
- l)  A right triangle with a vertical leg of 6 km and a horizontal leg of 10 km. The right angle is at the top-left vertex.
- m)  A right triangle with a vertical leg of 36 km and a horizontal leg of 15 km. The right angle is at the top-left vertex.
- n)  A right triangle with a vertical leg of 0,5 mm and a horizontal leg of 1,2 mm. The right angle is at the top-left vertex.
- o)  A right triangle with a vertical leg of 0,6 dm and a horizontal leg of 0,8 dm. The right angle is at the top-left vertex.
- p)  A right triangle with a vertical leg of 20 dm and a horizontal leg of 21 dm. The right angle is at the top-left vertex.
- q)  A right triangle with a vertical leg of 29 km and a horizontal leg of 20 km. The right angle is at the top-left vertex.
- r)  A right triangle with a vertical leg of 87 km and a horizontal leg of 60 km. The right angle is at the top-left vertex.
- s)  A right triangle with a vertical leg of 15 km and a horizontal leg of 9 km. The right angle is at the top-left vertex.
- t)  A right triangle with a vertical leg of 4 m and a horizontal leg of 7,5 m. The right angle is at the top-left vertex.
- u)  A right triangle with a vertical leg of 8 km and a horizontal leg of 15 km. The right angle is at the top-left vertex.
- v)  A right triangle with a vertical leg of 3,4 dm and a horizontal leg of 3 dm. The right angle is at the top-left vertex.
- w)  A right triangle with a vertical leg of 1 mm and a horizontal leg of 2,4 mm. The right angle is at the top-left vertex.
- x)  A right triangle with a vertical leg of 2 dm and a horizontal leg of 2,9 dm. The right angle is at the top-left vertex.
- y)  A right triangle with a vertical leg of 0,5 cm and a horizontal leg of 1,3 cm. The right angle is at the top-left vertex.
- z)  A right triangle with a vertical leg of 15 cm and a horizontal leg of 9 cm. The right angle is at the top-left vertex.

Rechenweg

- a) $\sqrt{(58 \text{ mm})^2 - (42 \text{ mm})^2} = 40 \text{ mm}$ b) $\sqrt{(0,5 \text{ dm})^2 - (0,4 \text{ dm})^2} = 0,3 \text{ dm}$
- c) $\sqrt{(51 \text{ m})^2 - (45 \text{ m})^2} = 24 \text{ m}$ d) $\sqrt{(10 \text{ mm})^2 - (6 \text{ mm})^2} = 8 \text{ mm}$
- e) $\sqrt{(3,4 \text{ m})^2 - (3 \text{ m})^2} = 1,6 \text{ m}$ f) $\sqrt{(13 \text{ mm})^2 - (12 \text{ mm})^2} = 5 \text{ mm}$
- g) $\sqrt{(6 \text{ km})^2 + (8 \text{ km})^2} = 10 \text{ km}$ h) $\sqrt{(8 \text{ cm})^2 + (15 \text{ cm})^2} = 17 \text{ cm}$
- i) $\sqrt{(5 \text{ mm})^2 - (3 \text{ mm})^2} = 4 \text{ mm}$ j) $\sqrt{(26 \text{ dm})^2 - (24 \text{ dm})^2} = 10 \text{ dm}$
- k) $\sqrt{(8,5 \text{ m})^2 - (4 \text{ m})^2} = 7,5 \text{ m}$ l) $\sqrt{(10 \text{ km})^2 - (6 \text{ km})^2} = 8 \text{ km}$
- m) $\sqrt{(15 \text{ km})^2 + (36 \text{ km})^2} = 39 \text{ km}$ n) $\sqrt{(0,5 \text{ mm})^2 + (1,2 \text{ mm})^2} = 1,3 \text{ mm}$
- o) $\sqrt{(0,6 \text{ dm})^2 + (0,8 \text{ dm})^2} = 1 \text{ dm}$ p) $\sqrt{(20 \text{ dm})^2 + (21 \text{ dm})^2} = 29 \text{ dm}$
- q) $\sqrt{(29 \text{ km})^2 - (20 \text{ km})^2} = 21 \text{ km}$ r) $\sqrt{(87 \text{ km})^2 - (60 \text{ km})^2} = 63 \text{ km}$
- s) $\sqrt{(15 \text{ km})^2 - (9 \text{ km})^2} = 12 \text{ km}$ t) $\sqrt{(4 \text{ m})^2 + (7,5 \text{ m})^2} = 8,5 \text{ m}$
- u) $\sqrt{(8 \text{ km})^2 + (15 \text{ km})^2} = 17 \text{ km}$ v) $\sqrt{(3,4 \text{ dm})^2 - (3 \text{ dm})^2} = 1,6 \text{ dm}$
- w) $\sqrt{(1 \text{ mm})^2 + (2,4 \text{ mm})^2} = 2,6 \text{ mm}$ x) $\sqrt{(2,9 \text{ dm})^2 - (2 \text{ dm})^2} = 2,1 \text{ dm}$
- y) $\sqrt{(1,3 \text{ cm})^2 - (0,5 \text{ cm})^2} = 1,2 \text{ cm}$ z) $\sqrt{(15 \text{ cm})^2 - (9 \text{ cm})^2} = 12 \text{ cm}$

Lösung

- | | | | |
|-----------|-----------|-----------|-----------|
| a) 40 mm | b) 0,3 dm | c) 24 m | d) 8 mm |
| e) 1,6 m | f) 5 mm | g) 10 km | h) 17 cm |
| i) 4 mm | j) 10 dm | k) 7,5 m | l) 8 km |
| m) 39 km | n) 1,3 mm | o) 1 dm | p) 29 dm |
| q) 21 km | r) 63 km | s) 12 km | t) 8,5 m |
| u) 17 km | v) 1,6 dm | w) 2,6 mm | x) 2,1 dm |
| y) 1,2 cm | z) 12 cm | | |