

1.	$a$	$b$	$c$
(a)	1.1 cm	6 cm	<b>6.1 cm</b>
(b)	69 cm	<b>92 cm</b>	115 cm
(c)	<b>1.56 m</b>	2.08 m	2.6 m

$$2. d = \sqrt{2} \cdot a \Rightarrow d = \sqrt{2} \cdot 11.4 \text{ cm} = \mathbf{16.12 \text{ cm}}$$

$$3. \text{ Seitenlänge: } a = \frac{d}{\sqrt{2}}$$

$$A = a^2 = \left( \frac{d}{\sqrt{2}} \right)^2 = \frac{d^2}{2} = \frac{169 \text{ cm}^2}{2} = \mathbf{84.5 \text{ cm}^2}$$

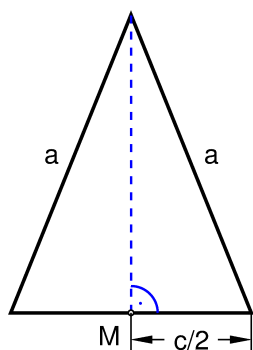
4.	$a$	$b$	$d$
(a)	21 cm	20 cm	<b>29 cm</b>
(b)	<b>2.4 mm</b>	4.5 mm	5.1 mm
(c)	99 m	<b>20 m</b>	101 m

$$5. h = \frac{\sqrt{3} \cdot a}{2} \Rightarrow h = 7.27 \text{ cm}$$

$$A = \frac{a \cdot h}{2} \Rightarrow A = \frac{8.4 \text{ cm} \cdot 7.27 \text{ cm}}{2} = \mathbf{30.55 \text{ cm}^2}$$

$$\text{oder direkt mit der bekannten Formel: } A = \frac{\sqrt{3}}{4} \cdot a^2 \Rightarrow A = \mathbf{30.55 \text{ cm}^2}$$

6.

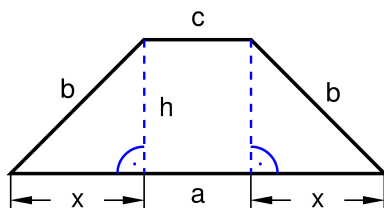


$$h = \sqrt{a^2 - \left(\frac{c}{2}\right)^2}$$

$$h = 8 \text{ cm}$$

$$A = \frac{a \cdot h}{2} = \mathbf{14.4 \text{ cm}^2}$$

7.

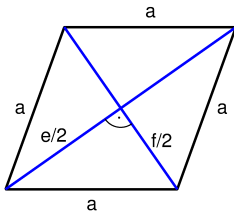


$$x = \frac{a - c}{2} = 12 \text{ dm}$$

$$h = \sqrt{b^2 - x^2} \Rightarrow h = 9 \text{ dm}$$

$$A = m \cdot h \Rightarrow A = 33 \text{ cm} \cdot 9 \text{ dm} = \mathbf{297 \text{ dm}^2}$$

8.



Im Rhombus stehen die Diagonalen senkrecht aufeinander.

$$a = \sqrt{\left(\frac{e}{2}\right)^2 + \left(\frac{f}{2}\right)^2}$$

$$a = \sqrt{(21 \text{ mm})^2 + (20 \text{ mm})^2}$$

$$a = \sqrt{841 \text{ mm}^2} = 29 \text{ mm}$$

$$u = 4a \Rightarrow u = \mathbf{116 \text{ mm}}$$

9.

	<i>a</i>	<i>b</i>	<i>c</i>
(a)	3.9 cm	5.2 cm	6.5 cm
(b)	44 km	117 km	124 km
(c)	36 dm	38 cm	36.2 dm

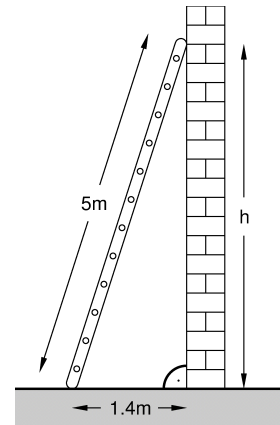
**rechtwinklig**

**nicht rechtwinklig**

**rechtwinklig**

10.  $h = \sqrt{(5 \text{ m})^2 - (1.4 \text{ m})^2}$

$$h = \sqrt{23.4 \text{ m}^2} = \mathbf{4.8 \text{ m}}$$



11.  $b = \sqrt{c^2 - a^2} \Rightarrow b = 21 \text{ cm}$

$$A = \frac{a \cdot b}{2} \Rightarrow A = \mathbf{117.6 \text{ cm}^2}$$

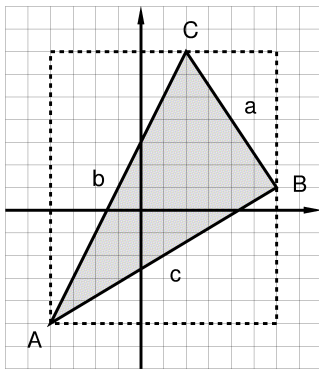
12.  $b = \frac{2A}{a} \Rightarrow b = \frac{60 \text{ cm}^2}{5 \text{ cm}} = 12 \text{ cm}$

$$c = \sqrt{a^2 + b^2}$$

$$c = \sqrt{(5 \text{ cm})^2 + (12 \text{ cm})^2} = \sqrt{169 \text{ cm}^2} = 13 \text{ cm}$$

$$u = a + b + c \Rightarrow u = 5 \text{ cm} + 12 \text{ cm} + 13 \text{ cm} = \mathbf{30 \text{ cm}}$$

13.



$$a = \sqrt{4^2 + 6^2} = \sqrt{52}$$

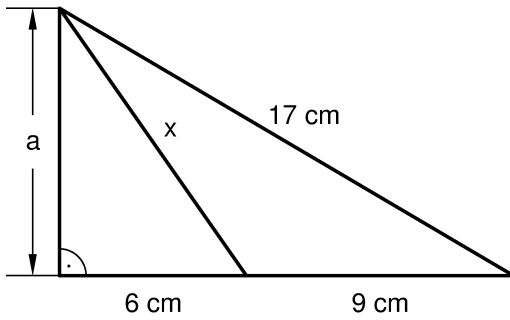
$$b = \sqrt{6^2 + 12^2} = \sqrt{180}$$

$$c = \sqrt{10^2 + 6^2} = \sqrt{136}$$

$$u = a + b + c = \mathbf{32.29 \text{ LE}}$$

14.

$x = ?$

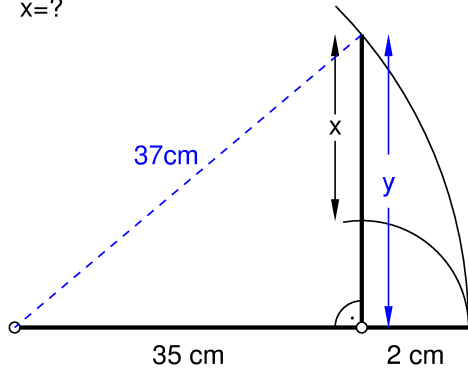


$$b = \sqrt{(17 \text{ cm})^2 - (15 \text{ cm})^2} = \sqrt{64 \text{ cm}^2} = 8 \text{ cm}$$

$$x = \sqrt{(8 \text{ cm})^2 + (6 \text{ cm})^2} = \sqrt{100 \text{ cm}^2} = \mathbf{10 \text{ cm}}$$

15.

$x = ?$



$$y = \sqrt{(37 \text{ cm})^2 - (35 \text{ cm})^2} = \sqrt{144 \text{ cm}^2} = 12 \text{ cm}$$

$$x = y - 2 \text{ cm} = \mathbf{10 \text{ cm}}$$