

Dobrovolný domácí úkol 6
(rovnoběžník)

- 1) Narýsuj rovnoběžník ABCD, ve kterém $a = 5$ cm, $b = 7$ cm a $|AC| = 9$ cm.
- 2) Sestroj rovnoběžník ABCD, $b = 7$ cm, $|BD| = 10$ cm, $a = 5$ cm.
- 3) Sestrojte rovnoběžník ABCD, ve kterém $a = 6$ cm, $b = 4$ cm, $\alpha = 75^\circ$.
- 4) Sestrojte rovnoběžník ABCD, ve kterém $a = 3$ cm, $b = 4,5$ cm, $v_a = 4$ cm
- 5) Sestroj rovnoběžník ABCD, kde $a = 6$ cm, $\beta = 55^\circ$, $b = 4$ cm
- 6) Sestrojte rovnoběžník ABCD, $b = 5$ cm, $\gamma = 60^\circ$, $v_b = 5$ cm
- 7) Sestrojte kosočtverec ABCD, je-li: $a = 5$ cm, $|\sphericalangle BAD| = 75^\circ$
- 8) Sestrojte kosočtverec ABCD, je-li: $a = 4$ cm, $v = 3$ cm
- 9) Sestroj kosočtverec ABCD, kde $|AB| = 5$ cm a úhlopříčka $|AC| = 9$ cm.

Dobrovolné domácí úkoly 6

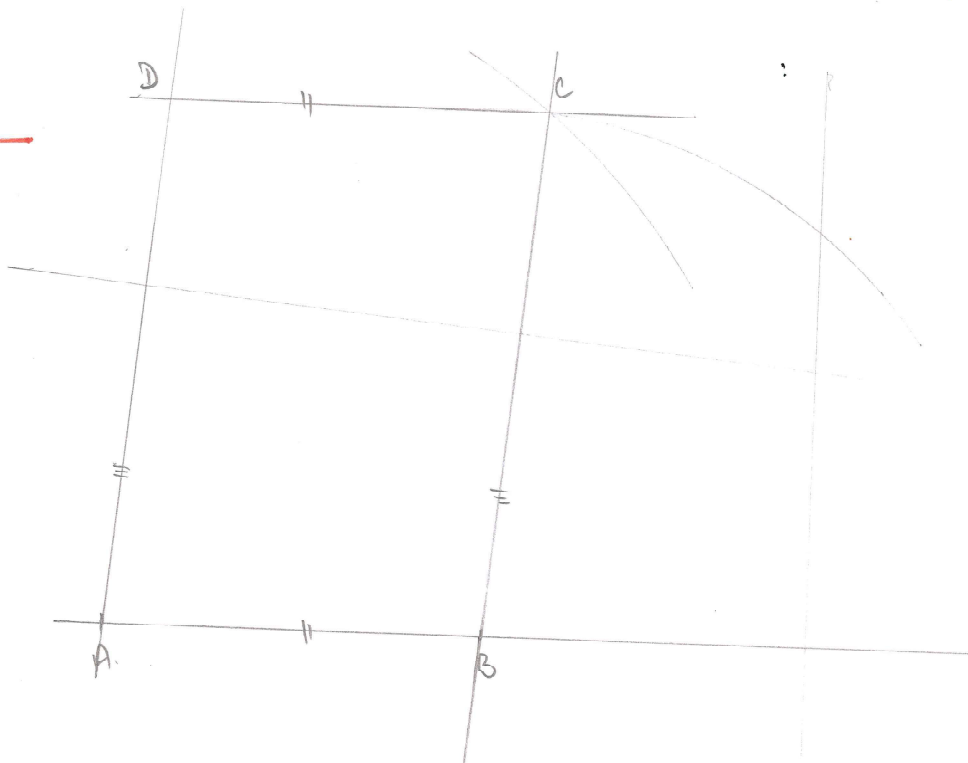
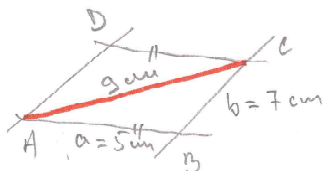
1, Narysuj rovnoběžník ABCD

$$a = 5 \text{ cm}$$

$$b = 7 \text{ cm}$$

$$|AC| = 9 \text{ cm}$$

Náčrt:

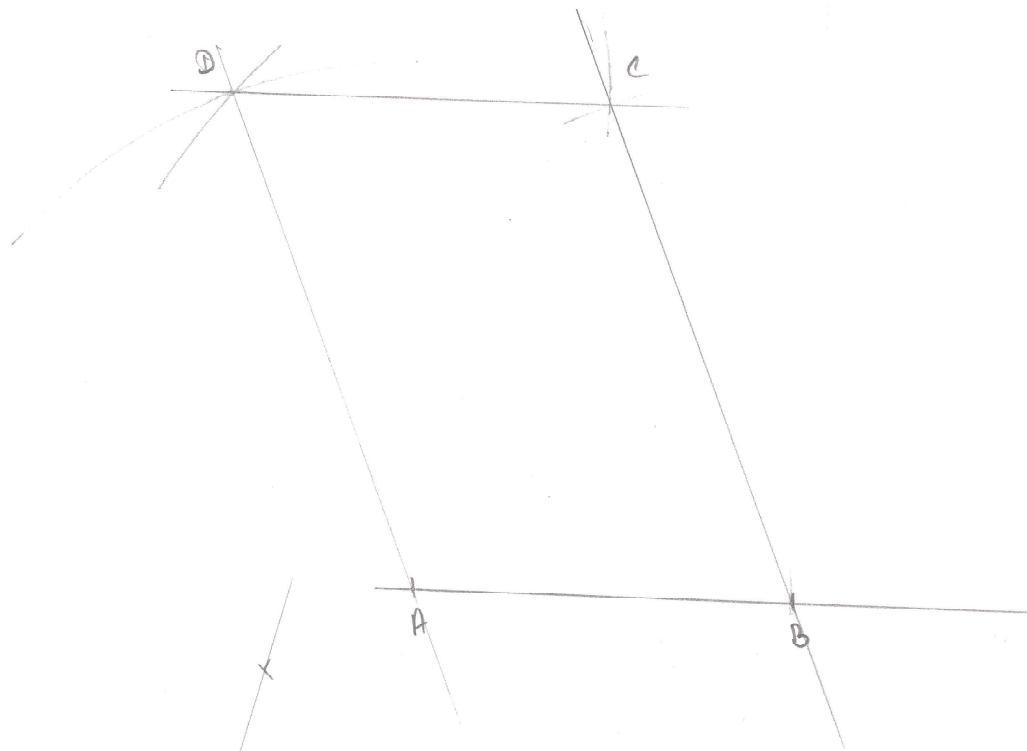
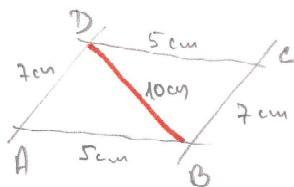


2, Rovnoběžník ABCD

$$b = 7 \text{ cm}$$

$$|BD| = 10 \text{ cm}$$

$$a = 5 \text{ cm}$$



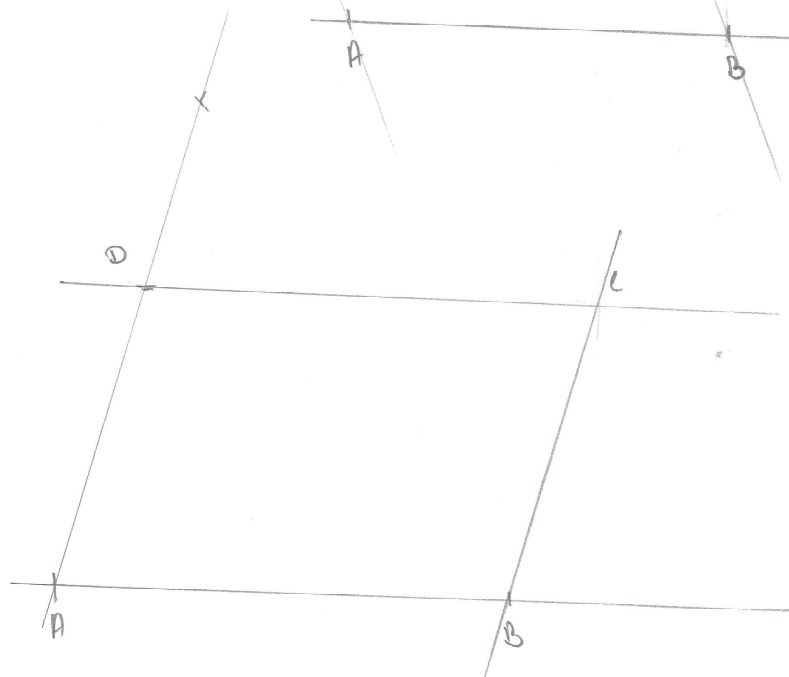
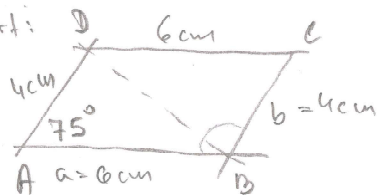
3, Rovnoběžník ABCD

$$a = 6 \text{ cm}$$

$$b = 4 \text{ cm}$$

$$\alpha = 75^\circ$$

Náčrt:



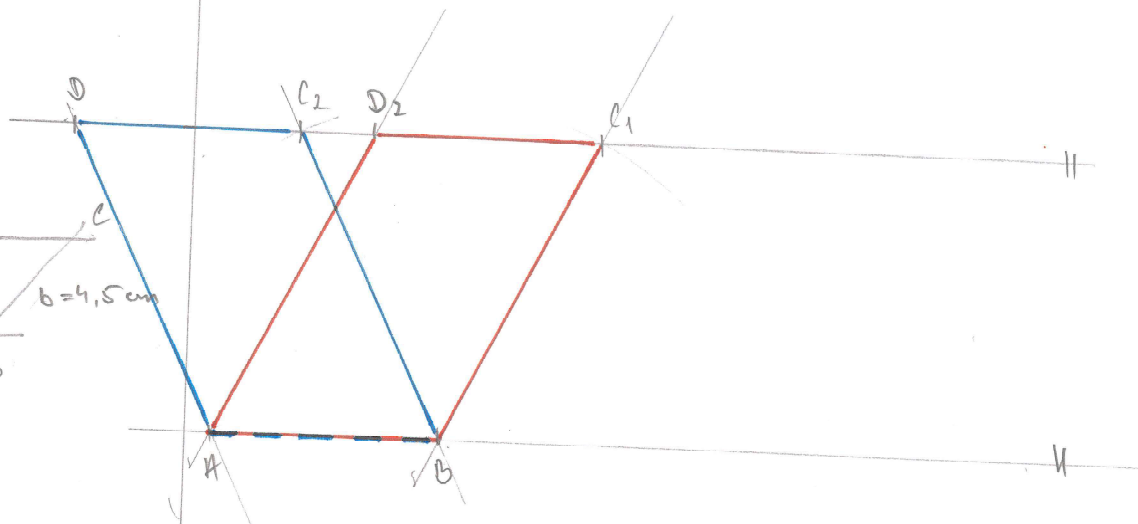
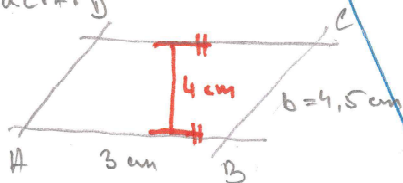
4, Rovnobežník ABCD

$$a = 3 \text{ cm}$$

$$b = 4,5 \text{ cm}$$

$$N_a = 4 \text{ cm}$$

Náčrt:

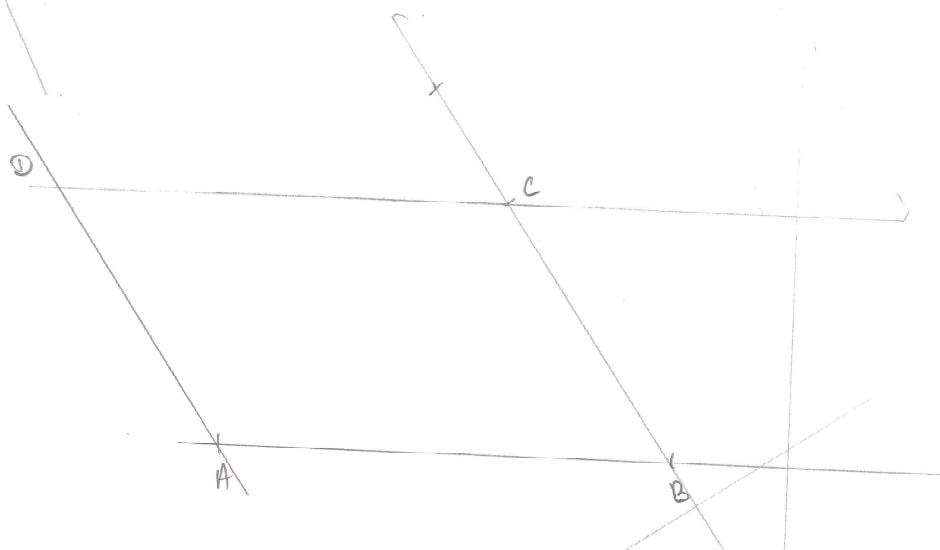
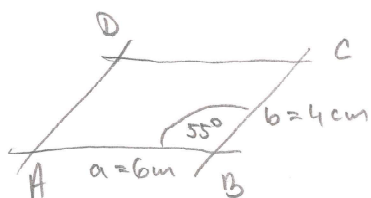


5, Rovnobežník ABCD

$$a = 6 \text{ cm}$$

$$b = 4 \text{ cm}$$

$$\beta = 55^\circ$$



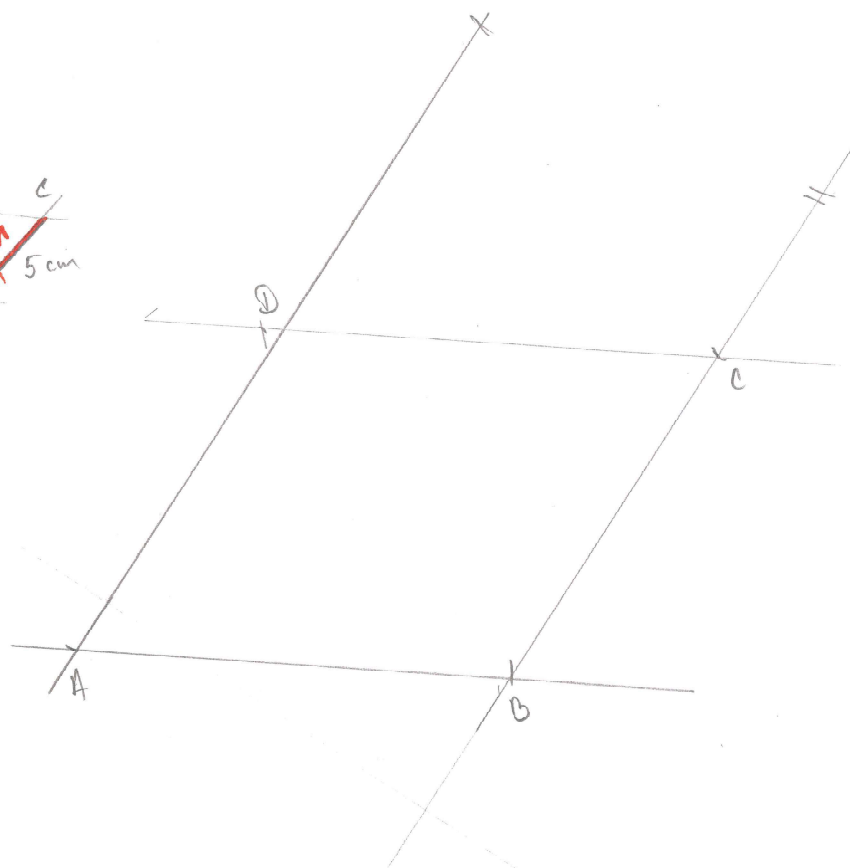
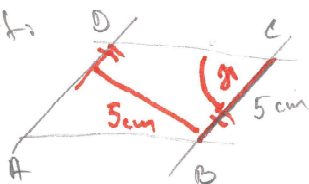
6, Rovnobežník ABCD

$$b = 5 \text{ cm}$$

$$\gamma = 60^\circ$$

$$N_b = 5 \text{ cm}$$

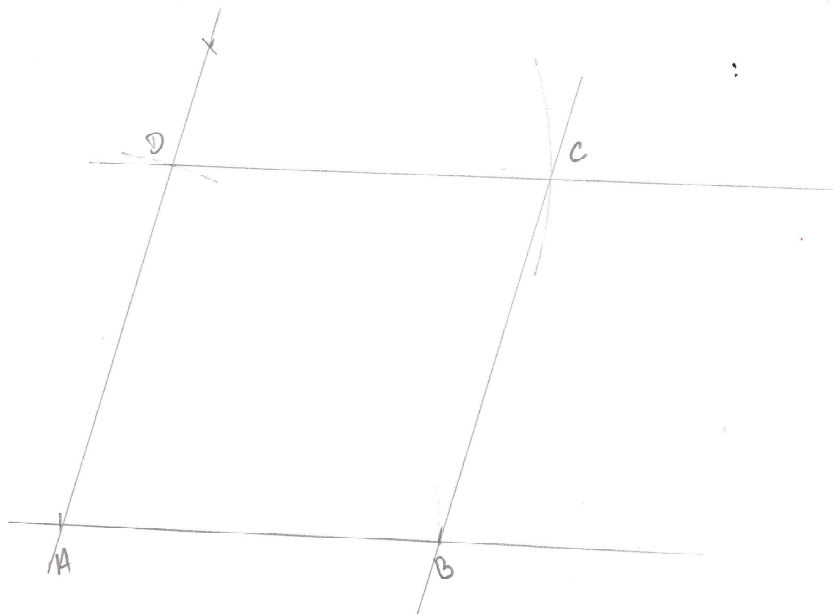
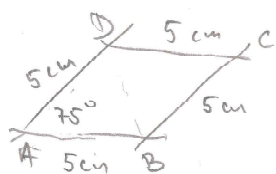
Náčrt:



7, Kosodrtverec ABCD

$$a = 5 \text{ cm}$$

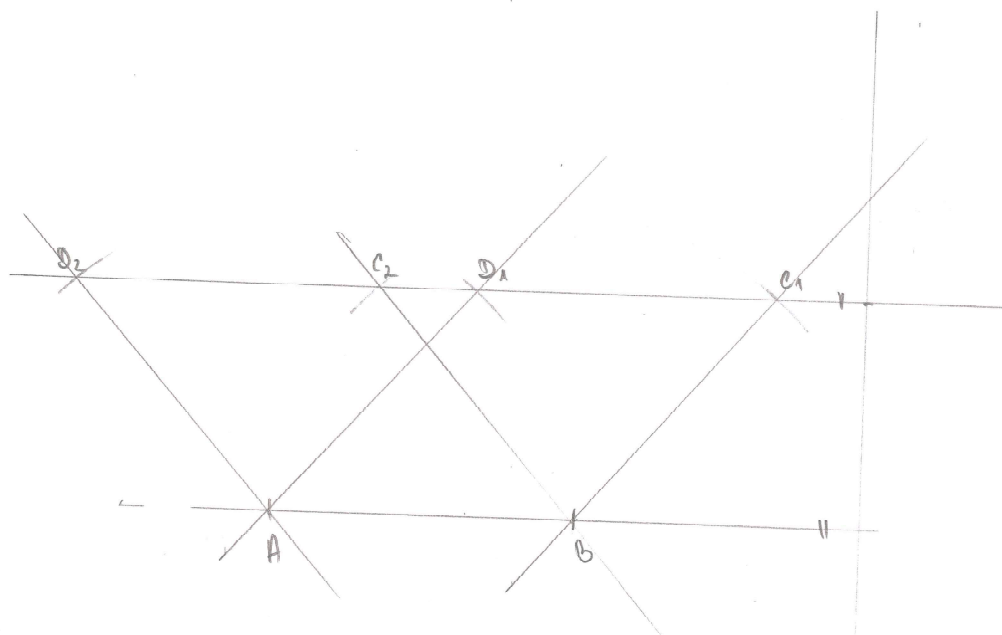
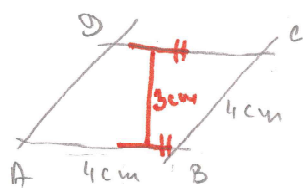
$$|\angle BAD| = 75^\circ$$



8, Kosodrtverec ABCD

$$a = 4 \text{ cm}$$

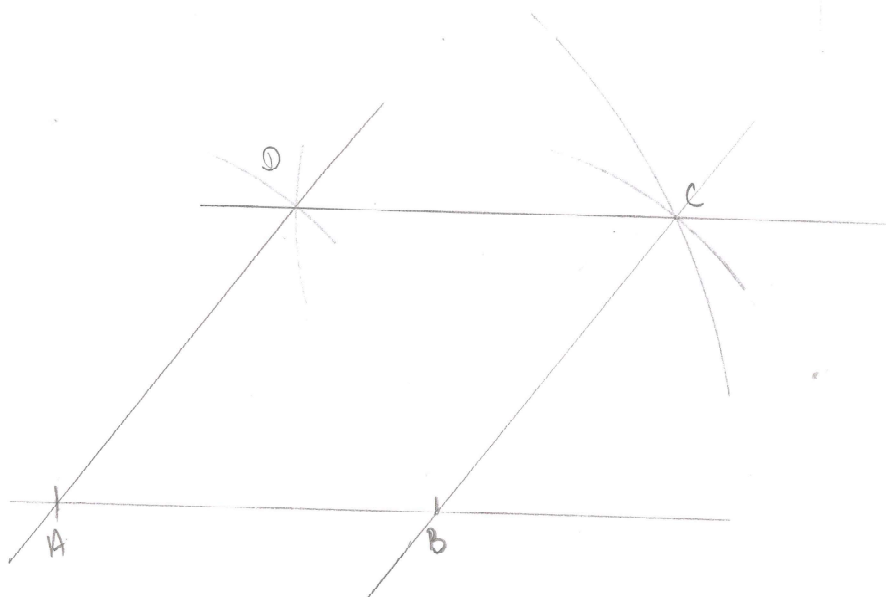
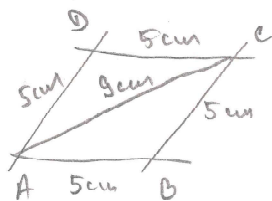
$$h = 3 \text{ cm}$$



9, Kosodrtverec ABCD

$$|AD| = 5 \text{ cm}$$

$$|AC| = 9 \text{ cm}$$



Dobrovolný domácí úkol 7

- 1) Sestrojte lichoběžník ABCD ($AB \parallel CD$), je-li: $a = 7$ cm, $c = 3$ cm, $\alpha = 75^\circ$, $v = 5$ cm.
- 2) Narýsuj pravoúhlý lichoběžník ABCD s pravým úhlem při vrcholu B, je-li dáno:
 $|AB| = a = 3,7$ cm, $|BC| = b = 5,6$ cm $|AD| = d = 6$ cm a je-li $AB \parallel CD$. Narýsuj obě řešení.
- 3) Sestrojte rovnoramenný lichoběžník ABCD, pokud je dáno: $a = 8$ cm, $\beta = 50^\circ$ a úhlopříčka BD je kolmá na rameno AD, $AB \parallel CD$.
- 4) Sestroj pravoúhlý lichoběžník ABCD s pravým úhlem u vrcholu A, je-li dáno: $a = 6$ cm, $|\sphericalangle ABC| = 65^\circ$, $|BD| = 8$ cm, a je-li $AB \parallel CD$. Vypočítej obsah a obvod.
- 5) Sestroj rovnoramenný lichoběžník KLMN, kde $k = 8$ cm, $m = 5$ cm, $|\sphericalangle KLM| = 71^\circ$.
- 6) Sestroj rovnoramenný lichoběžník ABCD $a = 8$ cm, $\alpha = 55^\circ$, $v = 4$ cm, $AB \parallel CD$.

Dobrovolný domácí úkol 7.

1, lichoběžník ABCD

$$AB \parallel CD$$

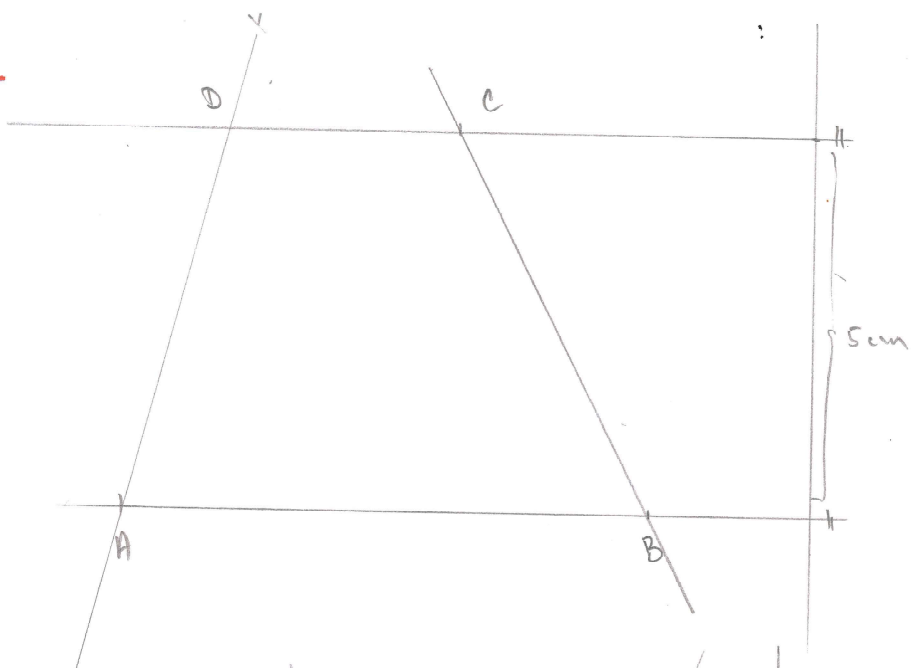
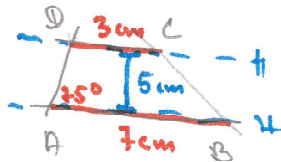
$$a = 7 \text{ cm}$$

$$c = 3 \text{ cm}$$

$$\alpha = 75^\circ$$

$$h = 5 \text{ cm}$$

Náčrt:



2, Pravoúhlý lichoběžník ABCD

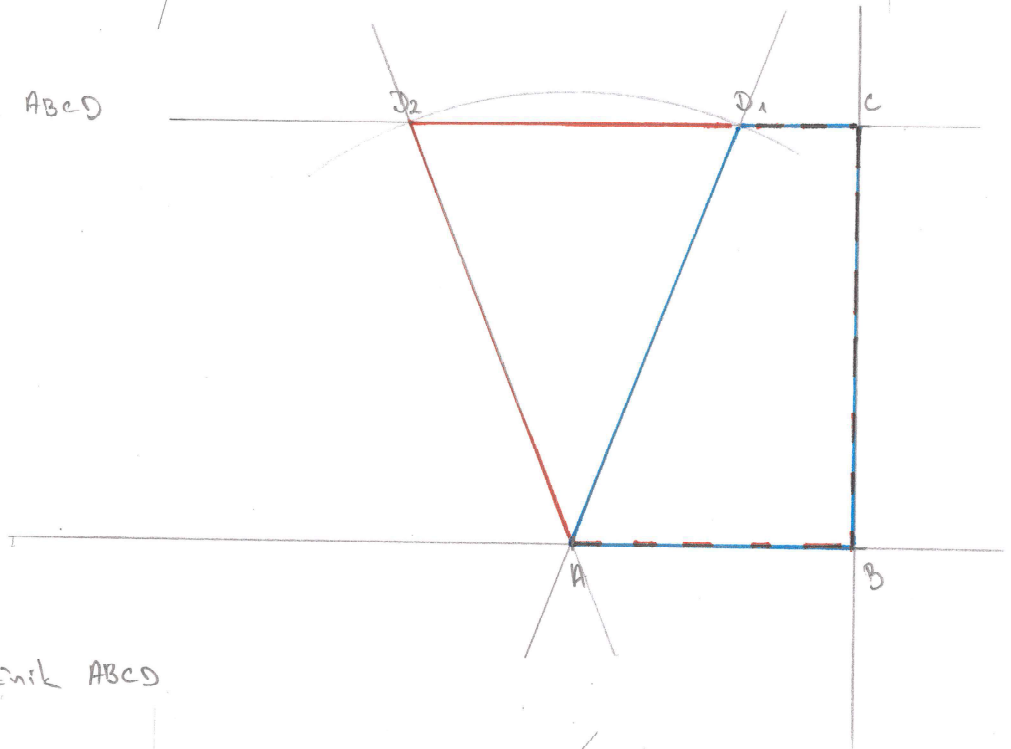
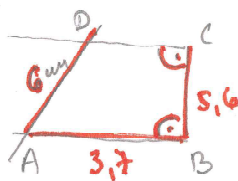
$$\beta = 90^\circ$$

$$a = 3,7 \text{ cm}$$

$$b = 5,6 \text{ cm}$$

$$d = 6 \text{ cm}$$

$$AB \parallel CD$$



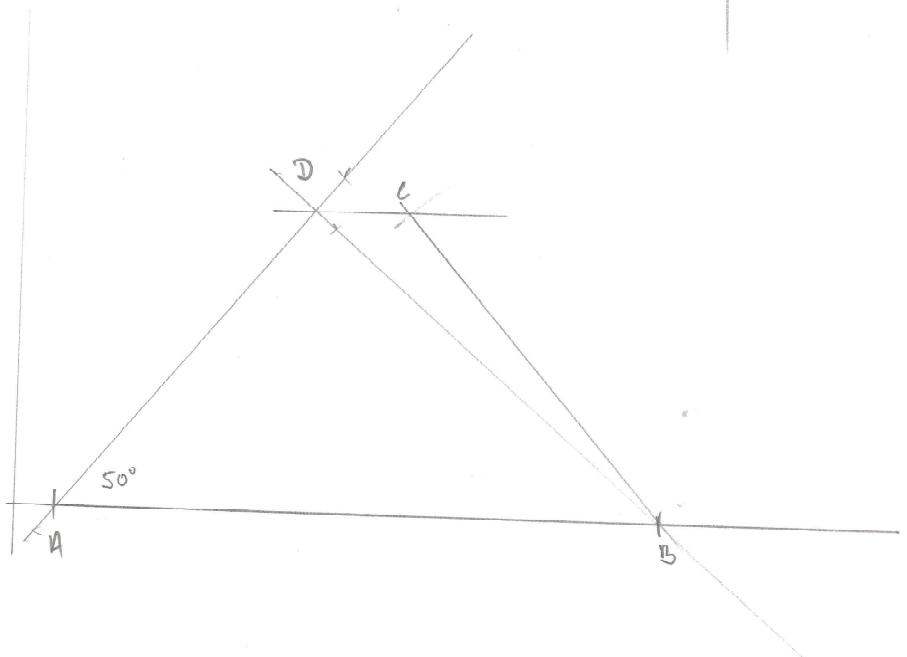
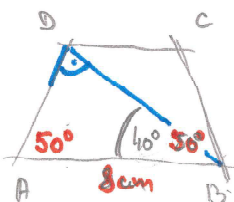
3, Zornoramenný lichoběžník ABCD

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

$$\angle B = 50^\circ \rightarrow \angle A = 50^\circ$$

$$AB \parallel CD$$

$$BD \perp AD$$



4, Pravoúhlý lichoběžník ABCD

$$\alpha = 90^\circ$$

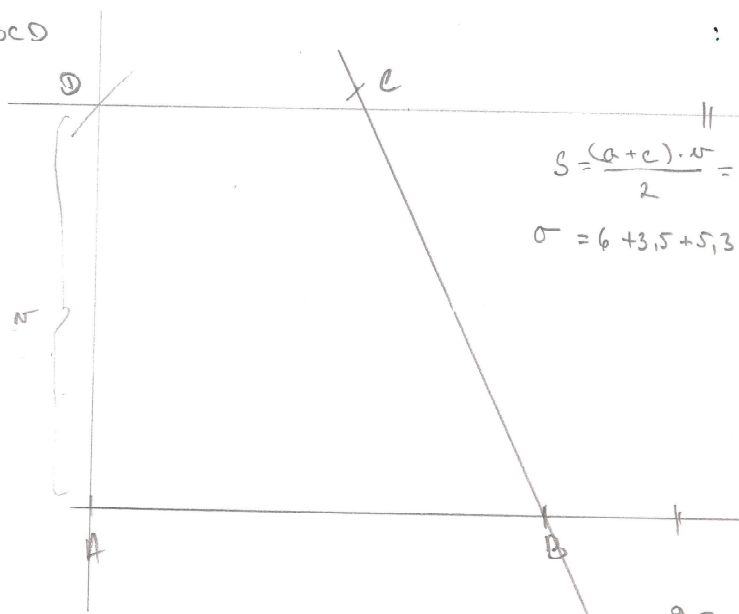
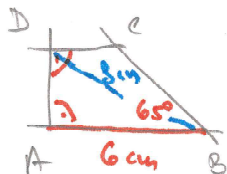
$$a = 6 \text{ cm}$$

$$|\angle ABC| = 65^\circ$$

$$|BD| = 8 \text{ cm}$$

$$AB \parallel CD$$

+ vypočítej obsah a obvod



$$S = \frac{(a+c) \cdot h}{2} = \frac{(6+3,5) \cdot 3,5}{2} = 25 \text{ cm}^2$$

$$O = 6 + 3,5 + 5,3 + 5,8 = 20,6 \text{ cm}$$

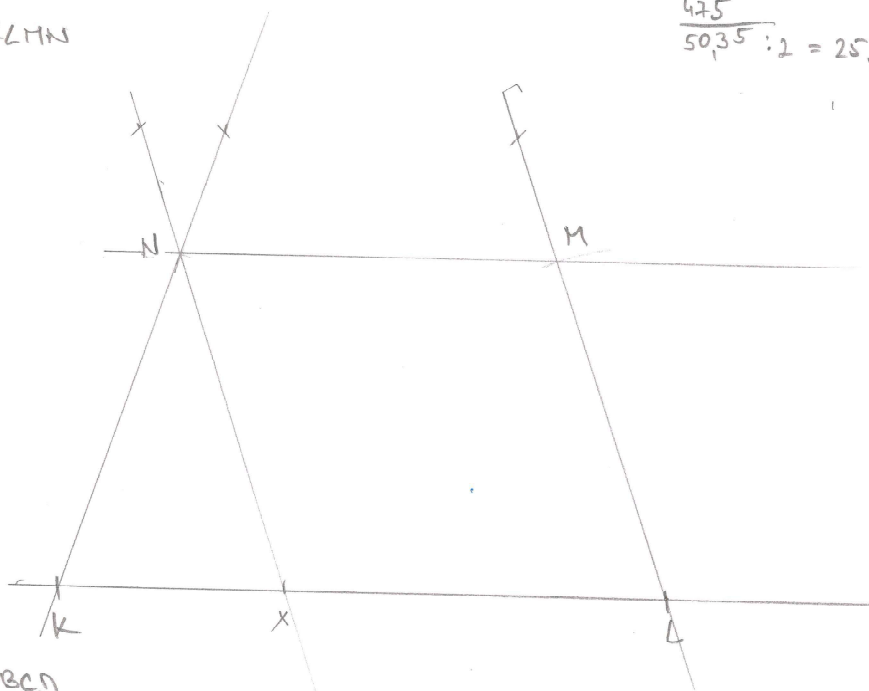
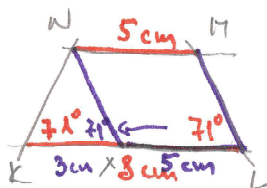
$$\begin{array}{r} 3,5 \\ \cdot 5,3 \\ \hline 285 \\ 475 \\ \hline 50,35 : 2 = 25,175 \end{array}$$

5, Rovnoramenný lichoběžník KLMN

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

$$m = 5 \text{ cm}$$

$$|\angle KLM| = 71^\circ$$



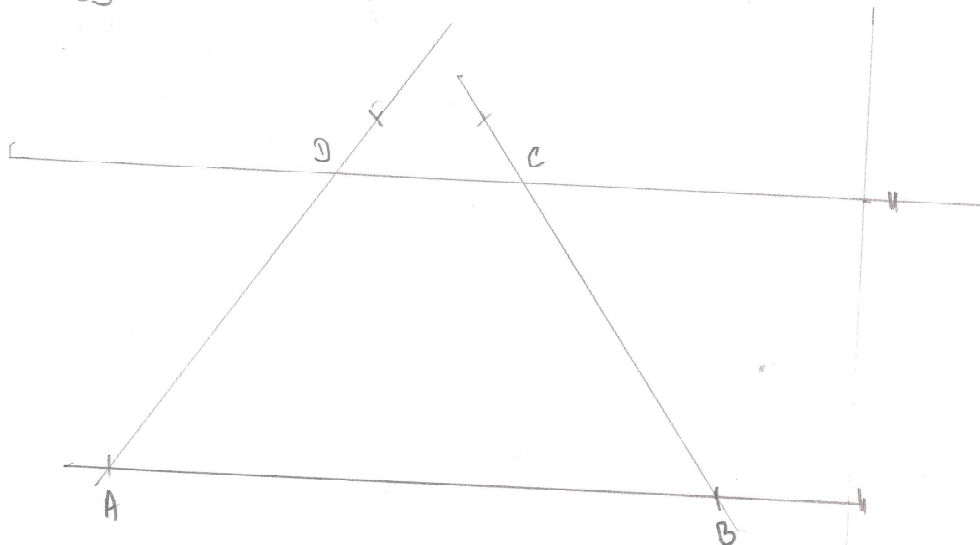
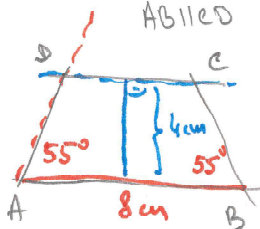
6, Rovnoramenný lichoběžník ABCD

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

$$\alpha = 55^\circ$$

$$h = 4 \text{ cm}$$

$$AB \parallel CD$$



Dobrovolný domácí úkol 8

1) Sestrojme lichoběžník ABCD ($AB \parallel CD$), je-li dáno: $a = 9$ cm, $b = 5,6$ cm, $c = 3$ cm, $|\sphericalangle BAC| = 35^\circ$. Najděte všechna řešení.

2) Sestroj kosočtverec ABCD, kde $v = 3$ cm, $\alpha = 30^\circ$

3) Sestroj rovnoramenný lichoběžník ABC, kde $a = 8$ cm, $\alpha = 60^\circ$, $c = 5$ cm.

4) Sestroj lichoběžník ABCD ($BC \parallel DA$), kde $b = 9$ cm, $c = 5$ cm, $d = 3$ cm, $a = 4$ cm.

5) Sestrojte kosočtverec ABCD tak, aby jeho úhlopříčka BD měla velikost 8 cm a $v = 5$ cm.

Dobrovolný úkol 8

1, Lichoběžník ABCD

$AB \parallel CD$

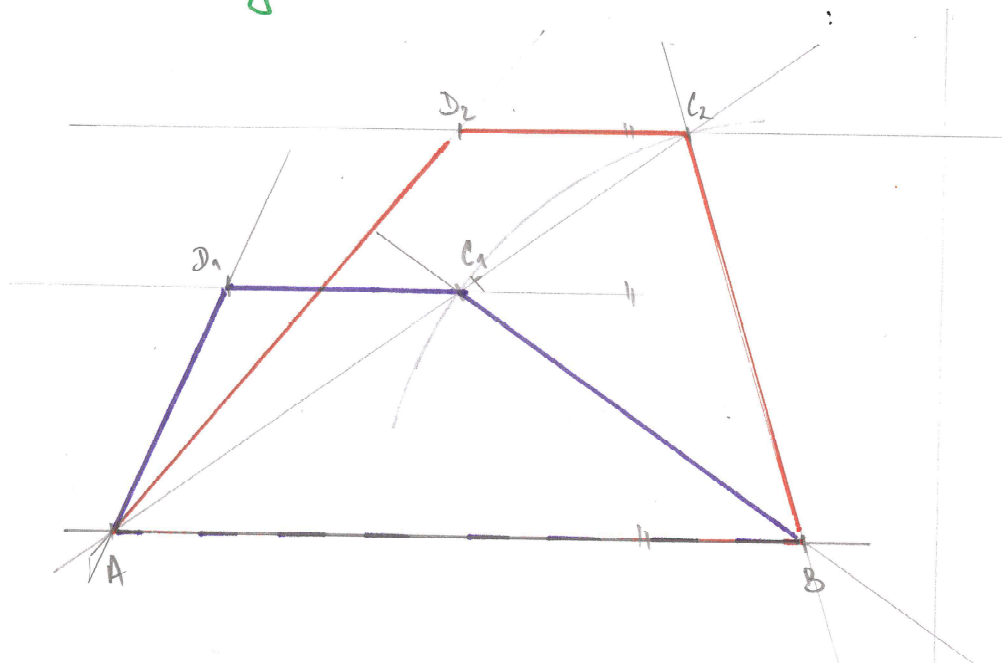
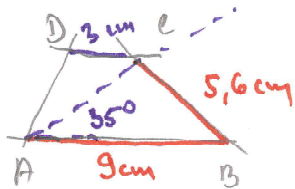
$$a = 9 \text{ cm}$$

$$b = 5,6 \text{ cm}$$

$$c = 3 \text{ cm}$$

$$|\angle BAC| = 35^\circ$$

Náčrt:

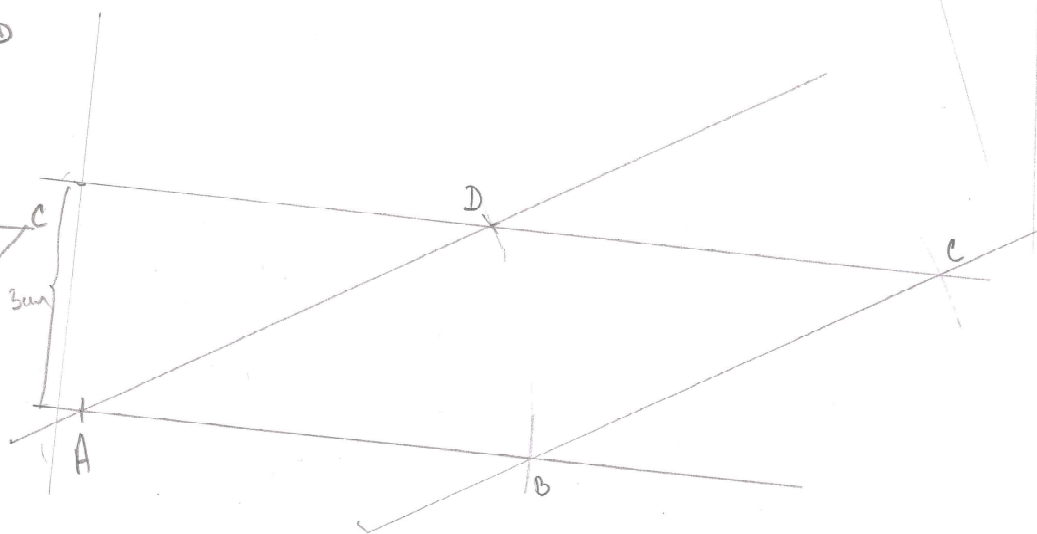
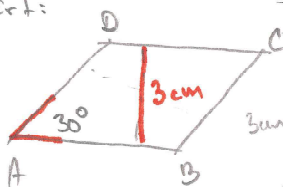


2, Kosodělník ABCD

$$a = 3 \text{ cm}$$

$$\alpha = 30^\circ$$

Náčrt:



3, Rovnoramenný lichoběžník ABCD

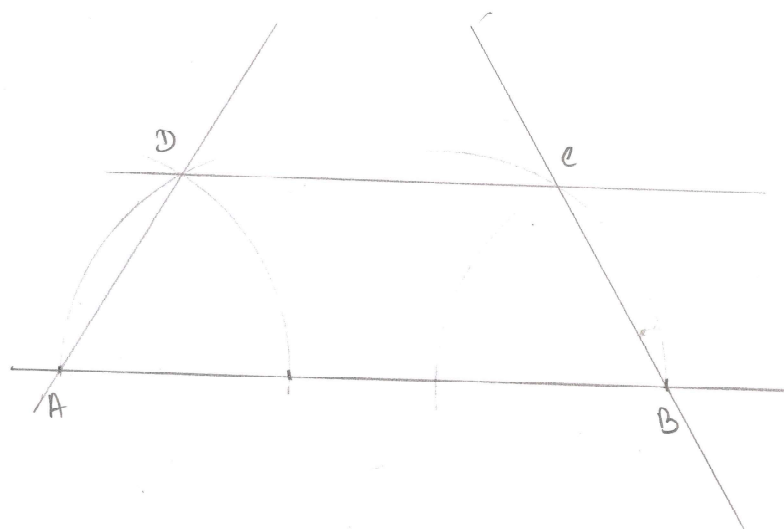
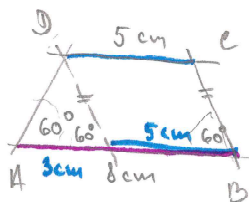
$$a = 8 \text{ cm}$$

$$\alpha = 60^\circ$$

$$c = 5 \text{ cm}$$

$AB \parallel CD$

Náčrt:



4, Lichobeiznik ABCD

$BC \parallel DA$

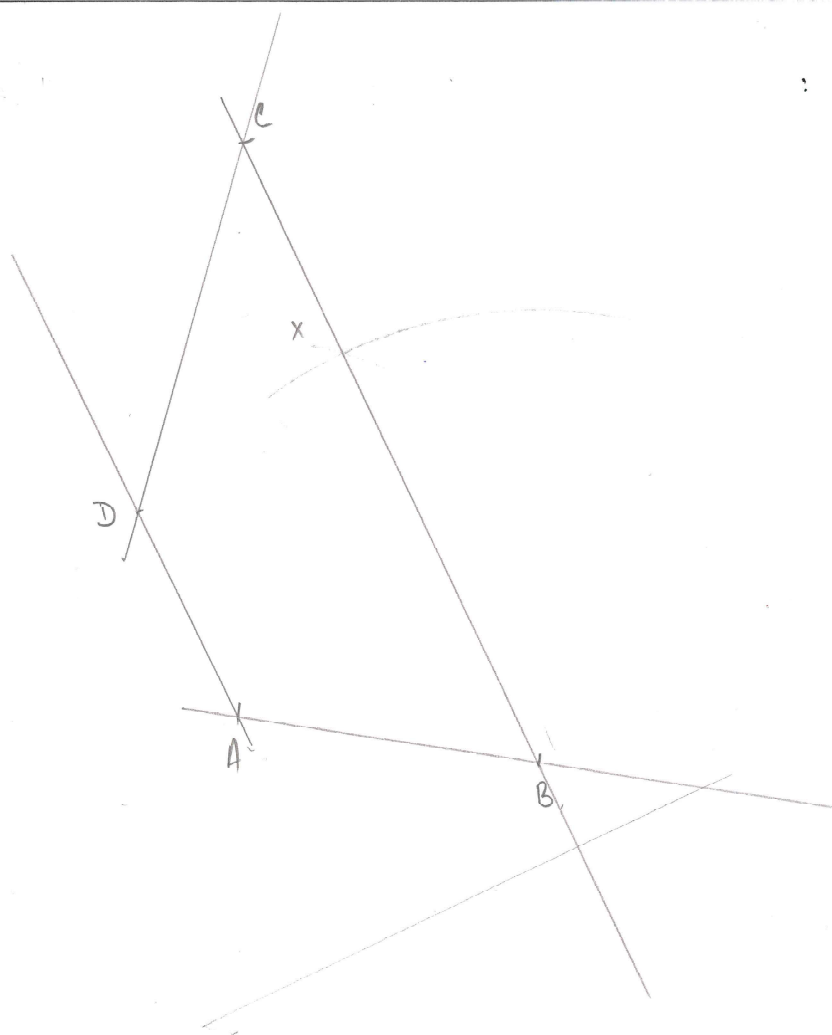
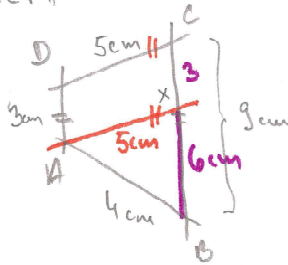
$b = 9 \text{ cm}$

$c = 5 \text{ cm}$

$d = 3 \text{ cm}$

$a = 4 \text{ cm}$

Náčrt



5, kosodrejec ABCD

$|BD| = 8 \text{ cm}$

$|AC| = 5 \text{ cm}$

Náčrt

