

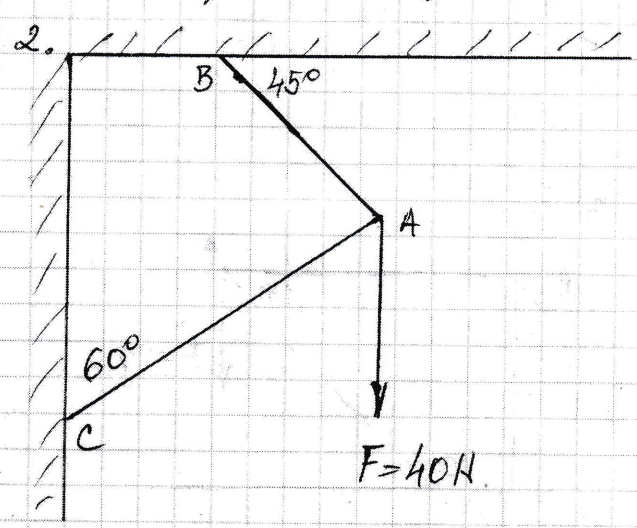
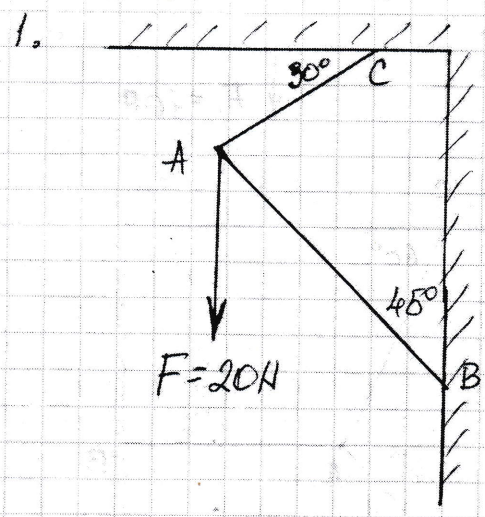
Механика - Тр - поправки

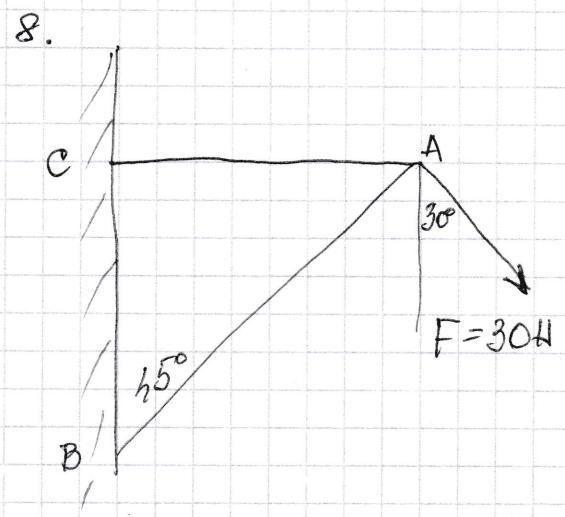
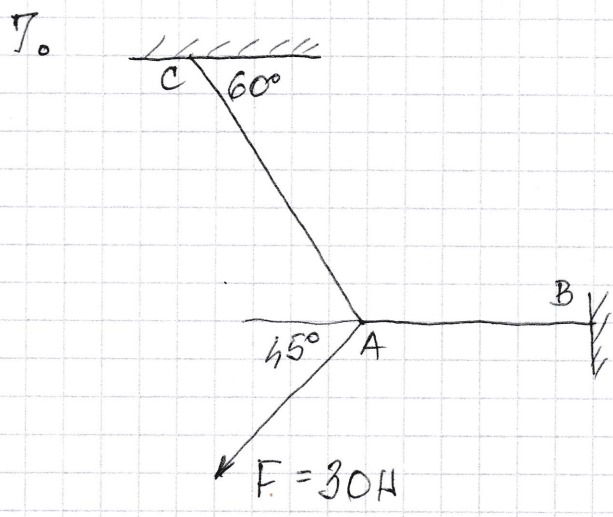
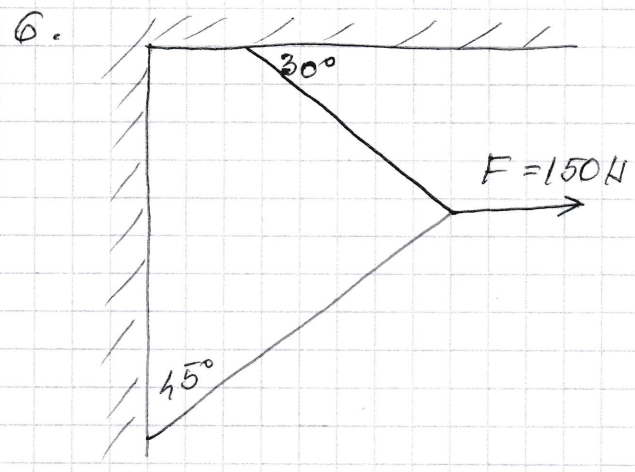
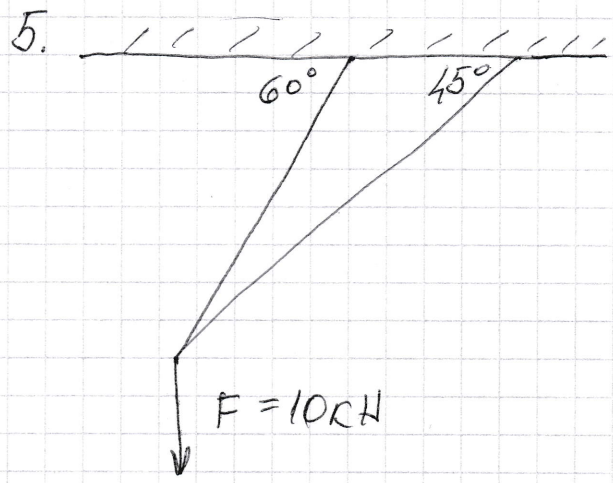
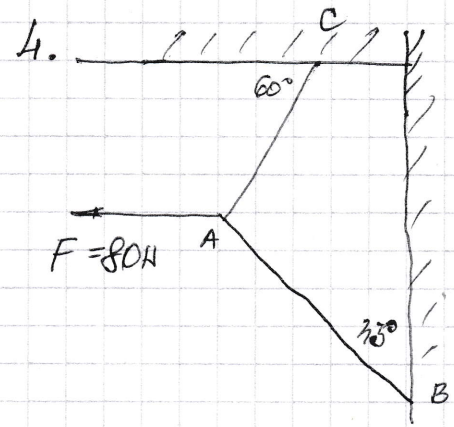
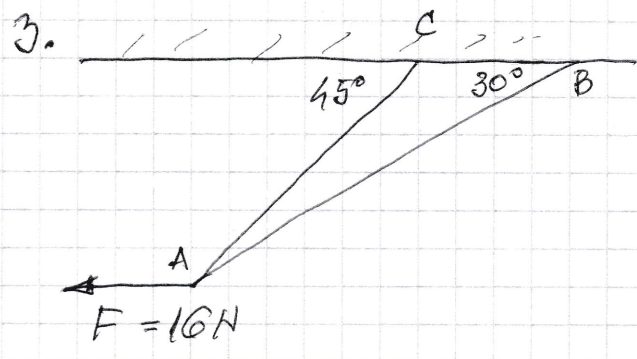
1) Система сучасних сил

Наки розумівають систему сучасних сил методом паралелограма, методом полігона та аналітичними. Запиши су результати поради:

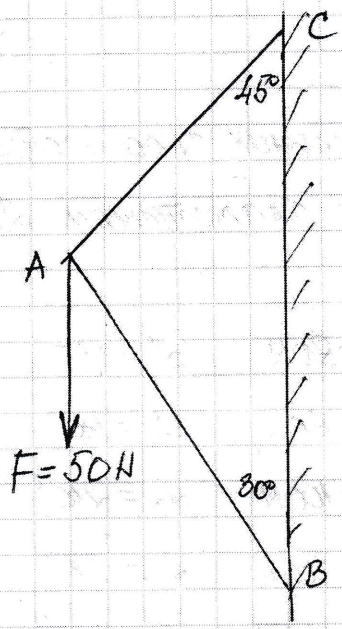
- | | | | |
|------------------------|------------------------|------------------------|------------------------|
| 1. $F_1 = 200\text{H}$ | $\alpha_1 = 150^\circ$ | 2. $F_1 = 80\text{H}$ | $\alpha_1 = 315^\circ$ |
| $F_2 = 250\text{H}$ | $\alpha_2 = 90^\circ$ | $F_2 = 60\text{H}$ | $\alpha_2 = 180^\circ$ |
| $F_3 = 150\text{H}$ | $\alpha_3 = 315^\circ$ | $F_3 = 100\text{H}$ | $\alpha_3 = 210^\circ$ |
| 3. $F_1 = 90\text{H}$ | $\alpha_1 = 150^\circ$ | 4. $F_1 = 200\text{H}$ | $\alpha_1 = 45^\circ$ |
| $F_2 = 150\text{H}$ | $\alpha_2 = 225^\circ$ | $F_2 = 120\text{H}$ | $\alpha_2 = 330^\circ$ |
| $F_3 = 120\text{H}$ | $\alpha_3 = 0^\circ$ | $F_3 = 160\text{H}$ | $\alpha_3 = 270^\circ$ |
| 5. $F_1 = 60\text{H}$ | $\alpha_1 = 60^\circ$ | 6. $F_1 = 40\text{H}$ | $\alpha_1 = -60^\circ$ |
| $F_2 = 150\text{H}$ | $\alpha_2 = 150^\circ$ | $F_2 = 30\text{H}$ | $\alpha_2 = 330^\circ$ |
| $F_3 = 180\text{H}$ | $\alpha_3 = 30^\circ$ | $F_3 = 50\text{H}$ | $\alpha_3 = 60^\circ$ |

2) Визначити силу у трикутнику та прикладити синусну теорему Визначити силу у трикутнику АВ та АС прикладити синусну теорему.

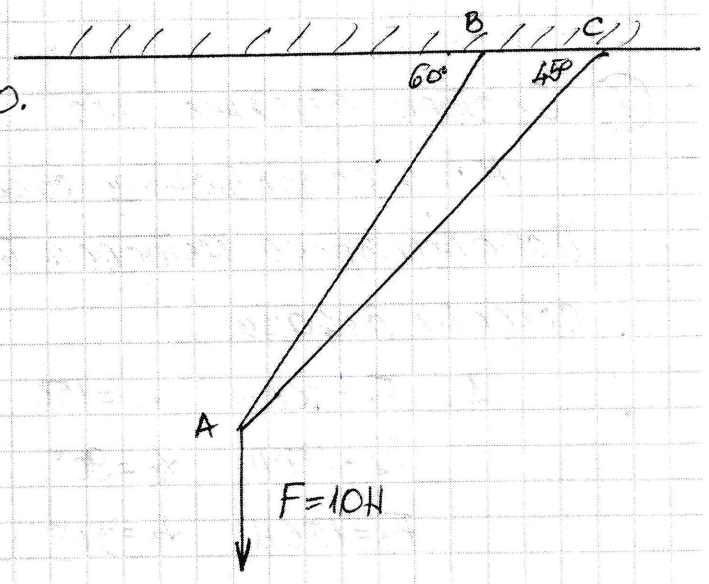




9.

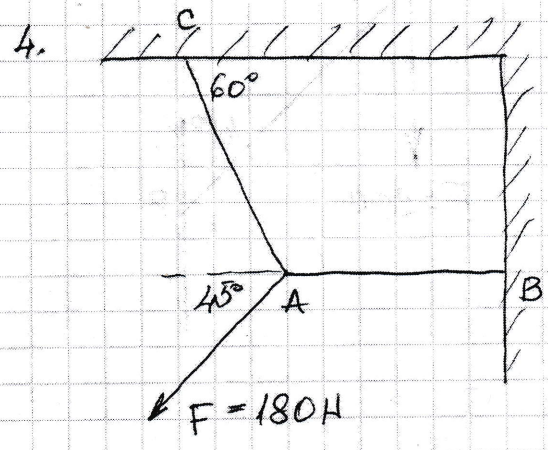
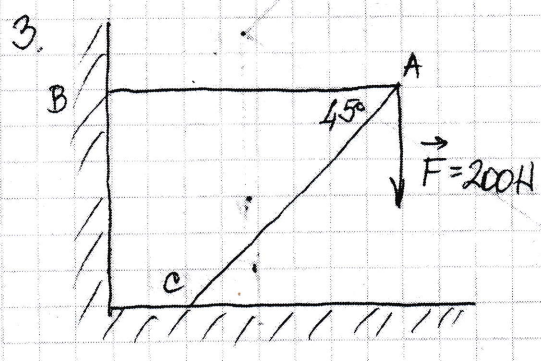
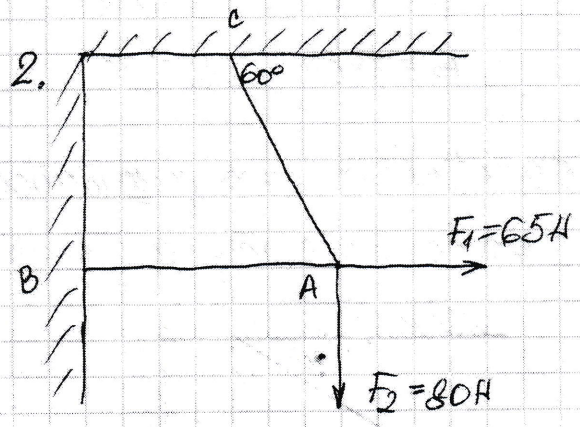
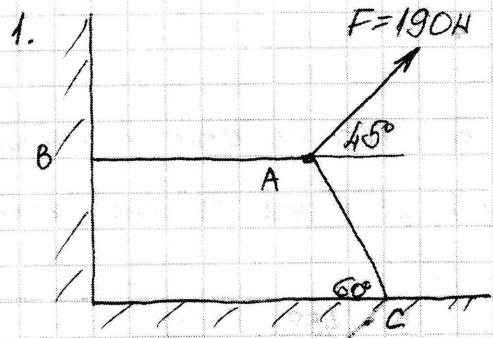


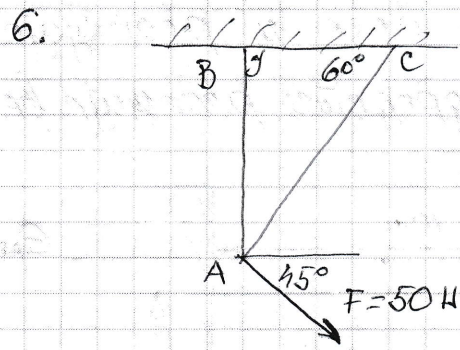
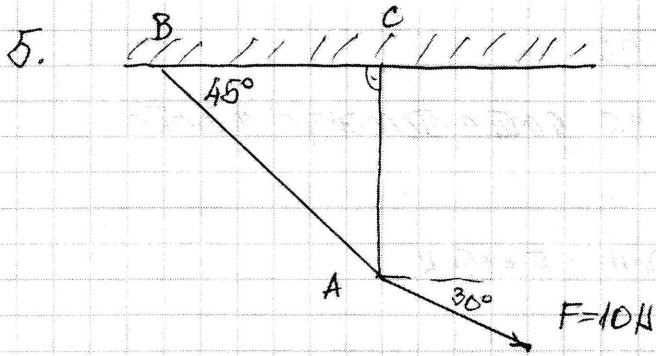
10.



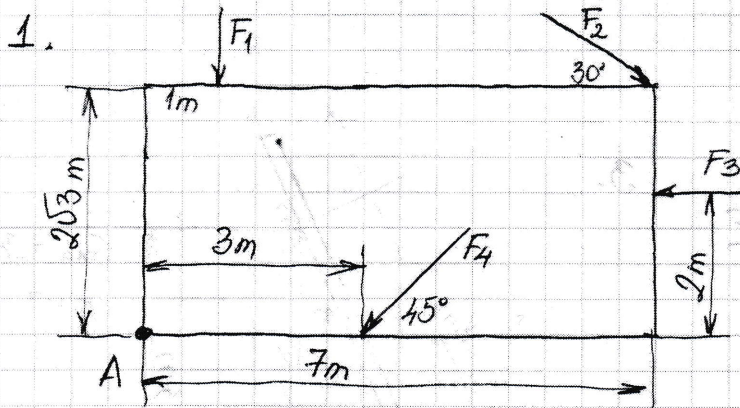
③ Анализ условия равновесия

Определим силы в стержнях АВ и АС с помощью метода



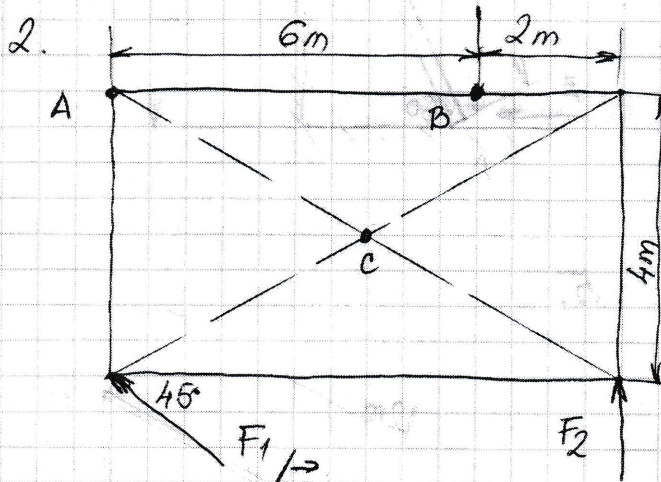


④ Моменти сил за тачку - Варијанова теорема



Одредити моменте свих сила до тачку А ако је:

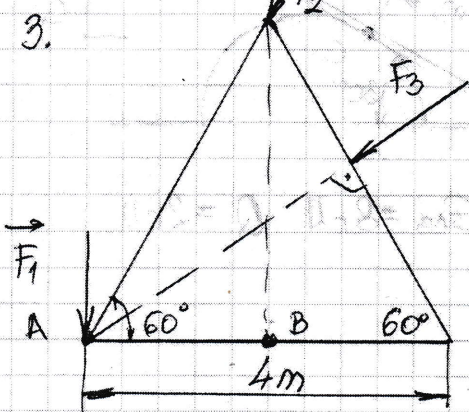
$F_1 = 8\text{N}$ $F_2 = 10\text{N}$ $F_3 = 3\text{N}$ $F_4 = 4\sqrt{2}\text{N}$



а) Одредити моменте свих сила до тачке А, В и С ако су издати интрузивни сили:

$F_1 = 16\sqrt{2}\text{N}$, $F_2 = 4\text{N}$

б) Колику треба да је интрузивни силе F_2 да се плоча не би одржала око тачке В?

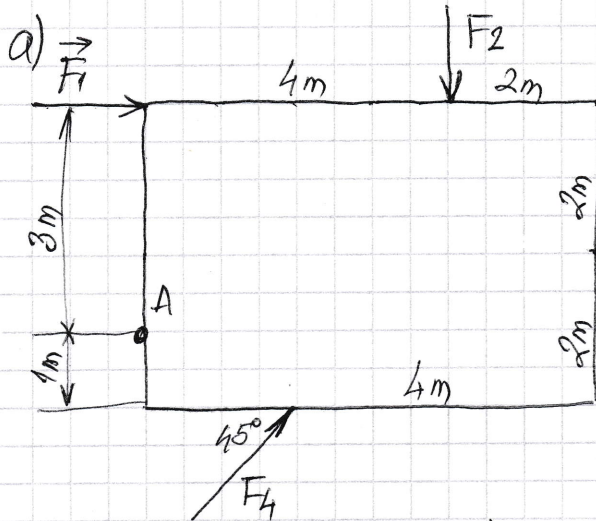


Одредити моменте свих сила до тачку В ако је:

$F_1 = 40\text{kN}$, $F_2 = 20\text{kN}$, $F_3 = 30\text{kN}$

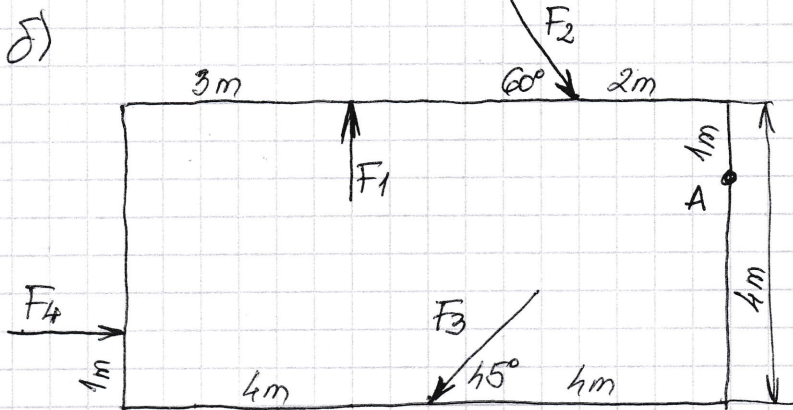
4. Одредити момент свих сна за тачку А

(5)



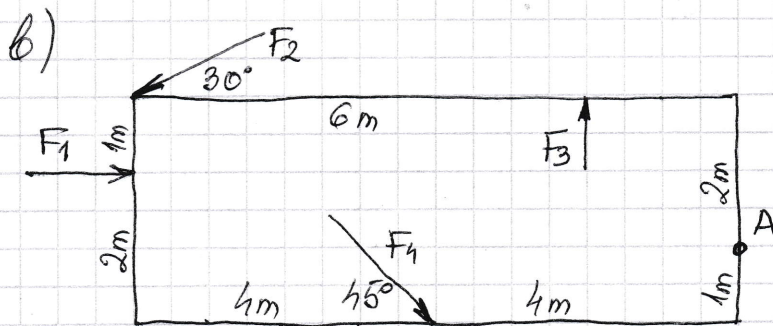
$$F_1 = 2\text{N} \quad F_2 = 3\text{N} \quad F_3 = 4\text{N} \quad F_4 = 5\sqrt{2}\text{N}$$

Колука спреда га је сила F_2 га се тачка не би одржала?



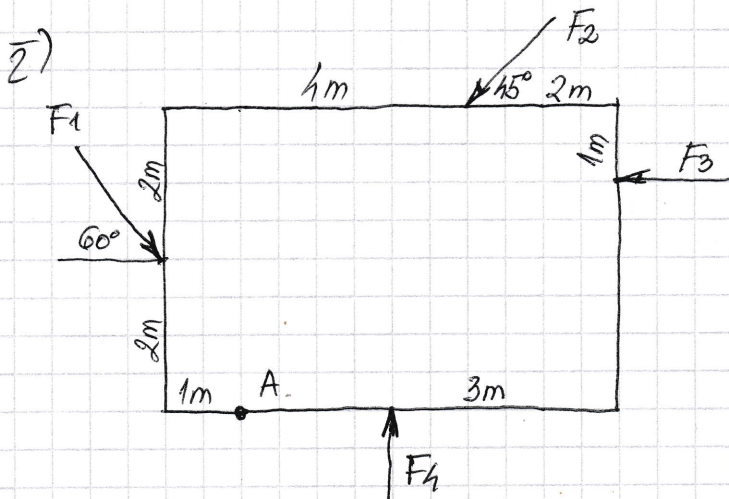
$$F_1 = 12\text{N} \quad F_2 = 18\text{N} \quad F_3 = 6\sqrt{2}\text{N}, F_4 = 8\text{N}$$

Колука спреда га је сила F_4 га се тачка не би одржала?



$$F_1 = 16\text{N}, F_2 = 4\text{N}, F_3 = 8\text{N}, F_4 = 12\sqrt{2}\text{N}$$

Колука спреда га је сила F_3 га се тачка не би одржала?

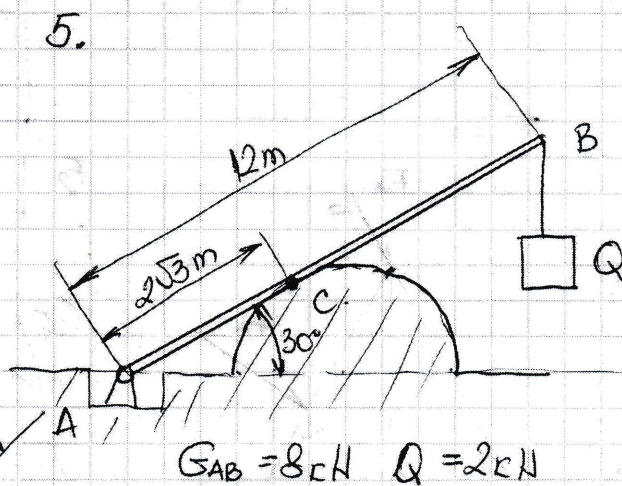
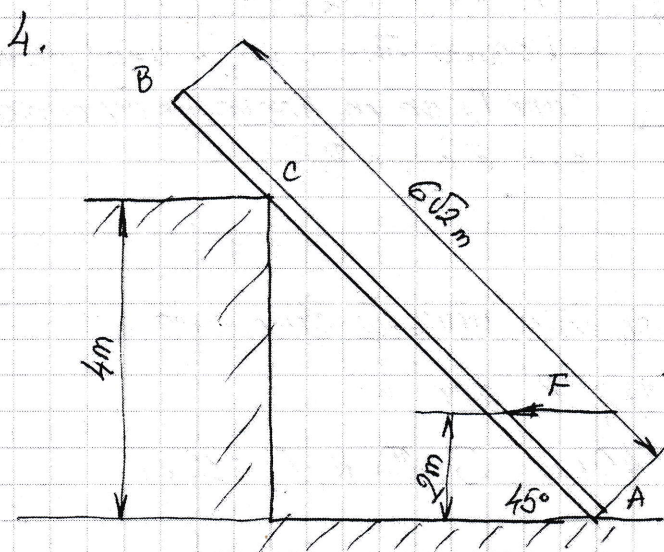
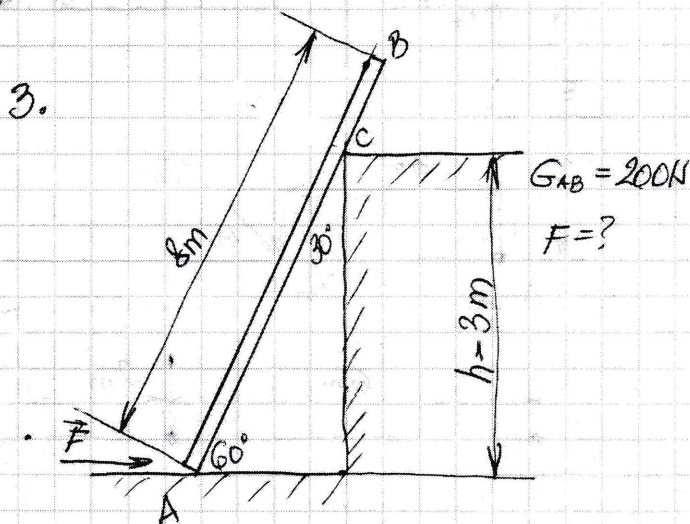
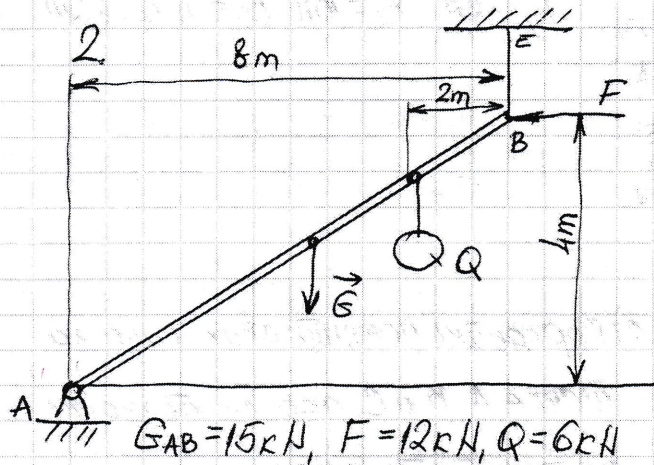
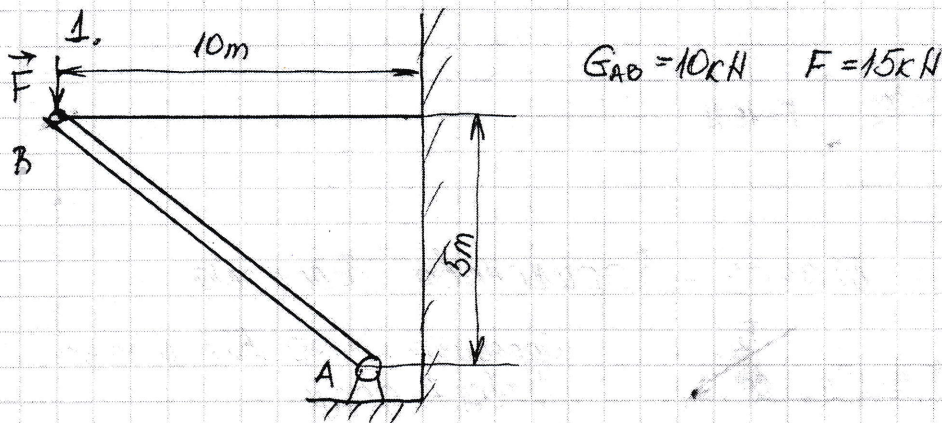


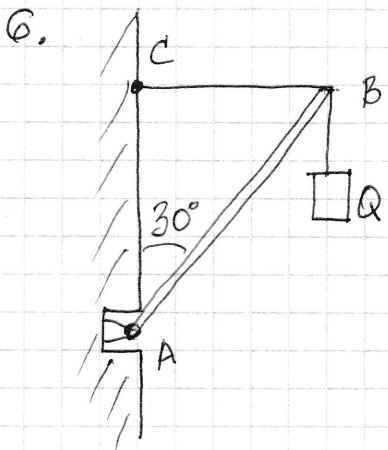
$$F_1 = 8\text{N}, F_2 = 10\sqrt{2}\text{N}, F_3 = 6\text{N}, F_4 = 20\text{N}$$

Колука спреда га је сила F_4 га се тачка не би одржала?

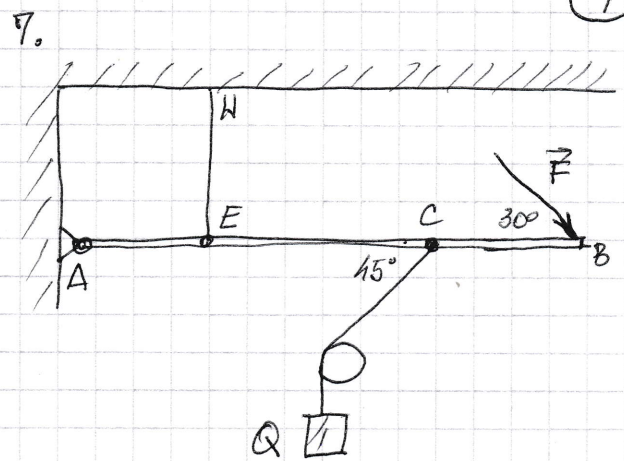
5) Везе и реакције веза

a) Одредити реакције веза за дате положаје штапа:

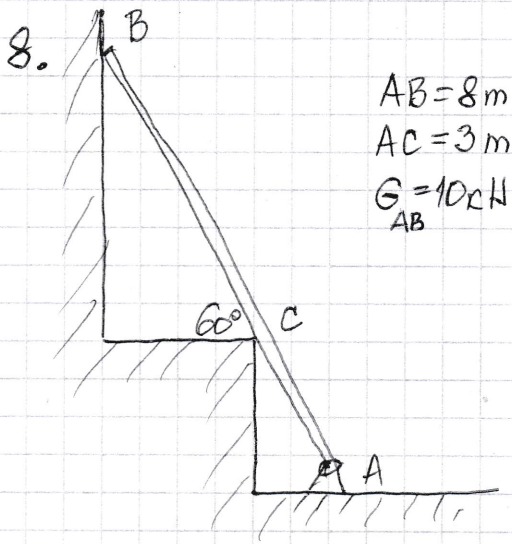




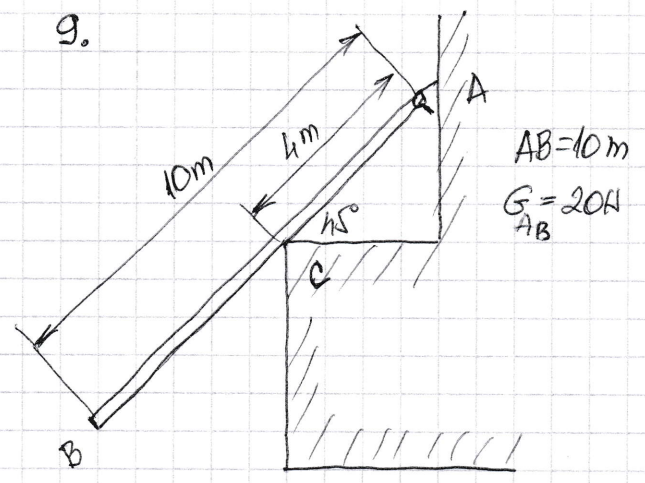
$AB = 8\text{m}$ $Q = 4\sqrt{3}\text{kN}$
 $G_{AB} = 20\sqrt{3}\text{kN}$



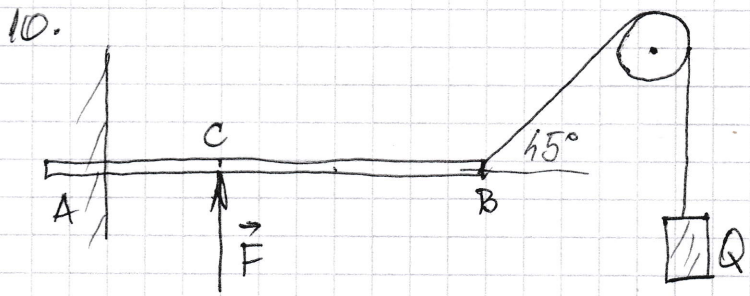
$AB = 8\text{m}$ $CB = 3\text{m}$ $AE = 2\text{m}$
 $Q = 6\text{kN}$ $F = 4\text{kN}$ $G_{AB} = 10\text{kN}$



$AB = 8\text{m}$
 $AC = 3\text{m}$
 $G = 10\text{kN}$



$AB = 10\text{m}$
 $G = 20\text{kN}$

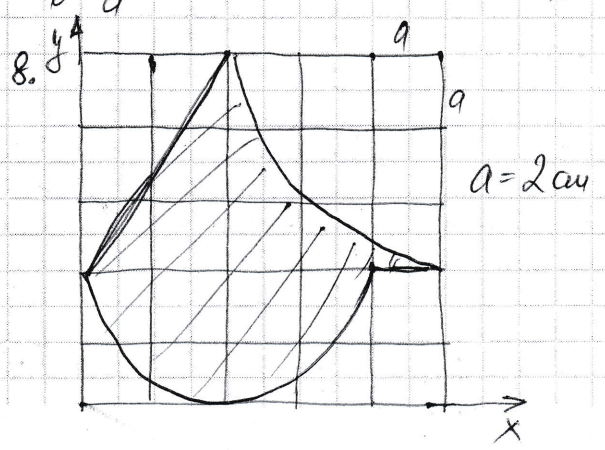
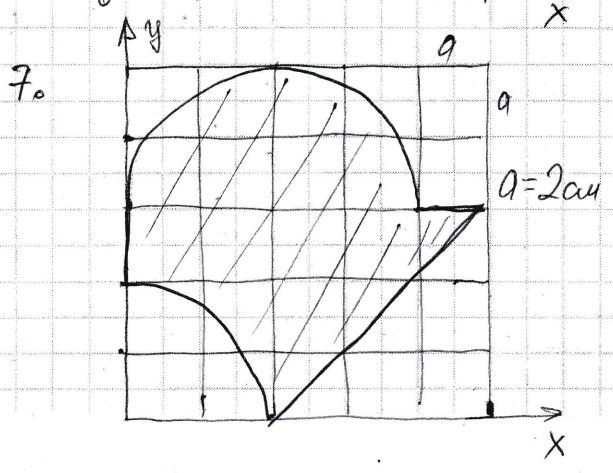
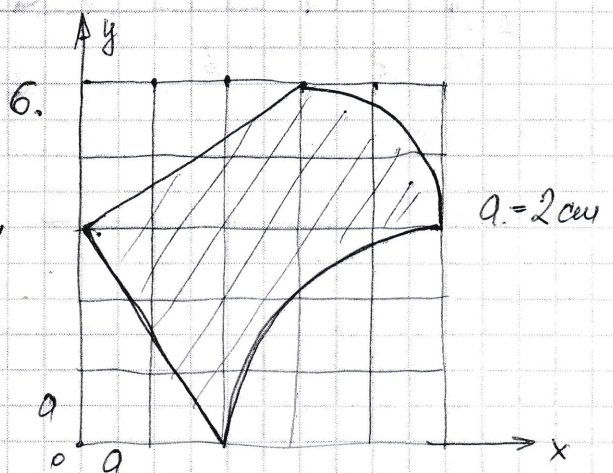
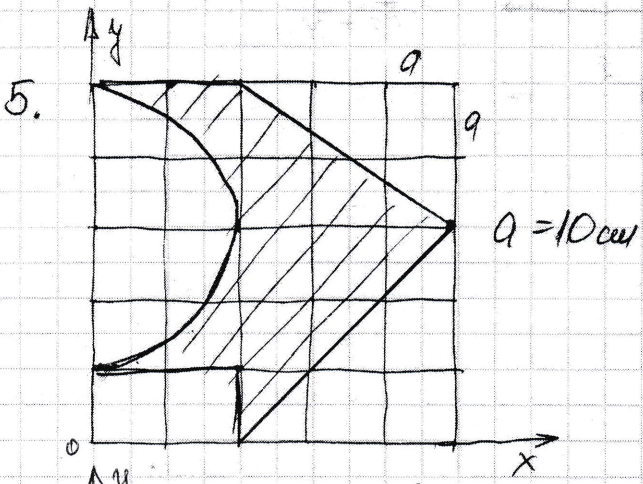
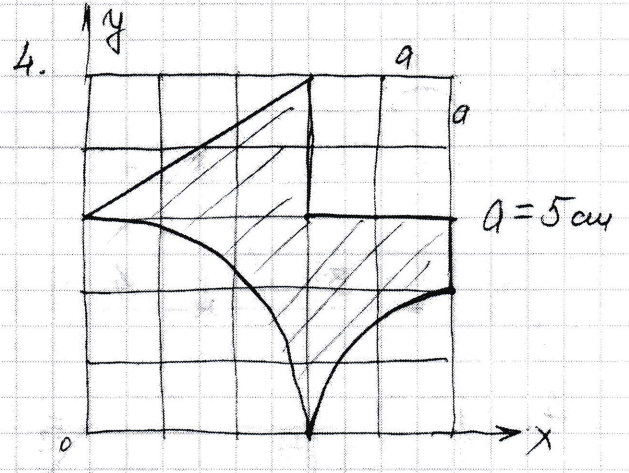
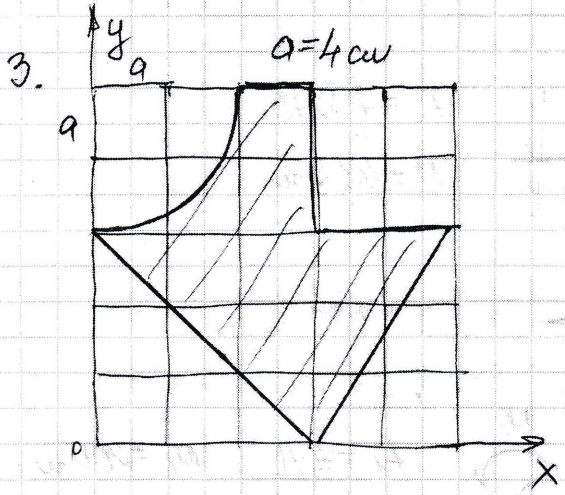
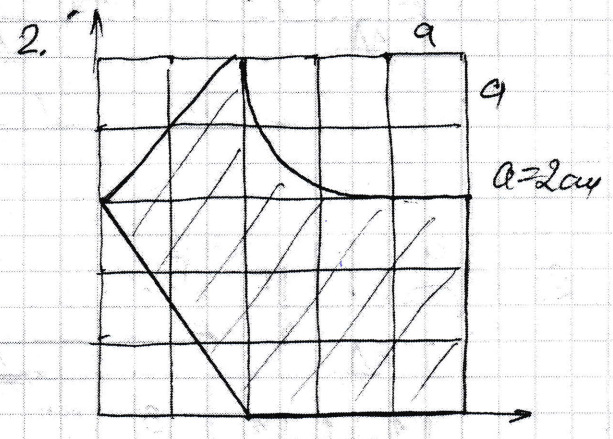
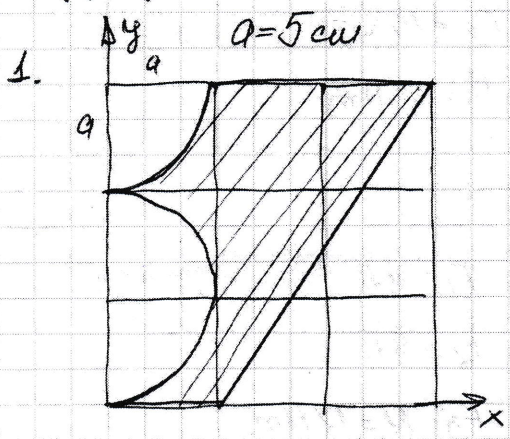


$AB = 6\text{m}$ $AC = 2\text{m}$
 $Q = 4\sqrt{2}\text{kN}$ $F = 23\text{kN}$
 $G_{AB} = 20\text{kN}$

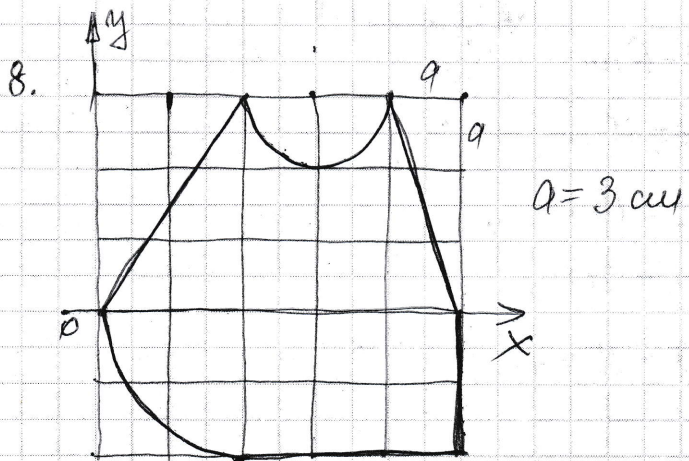
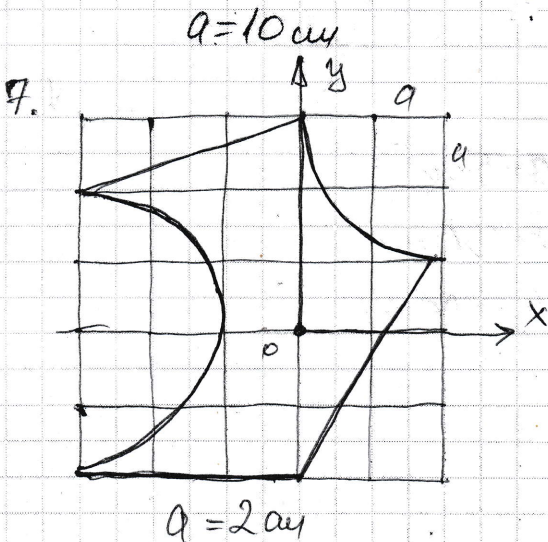
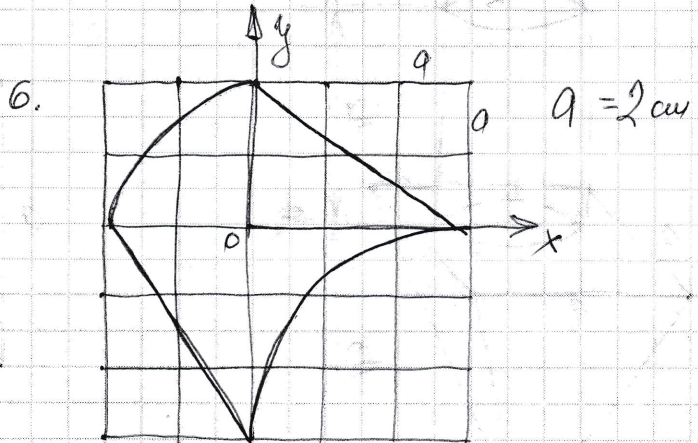
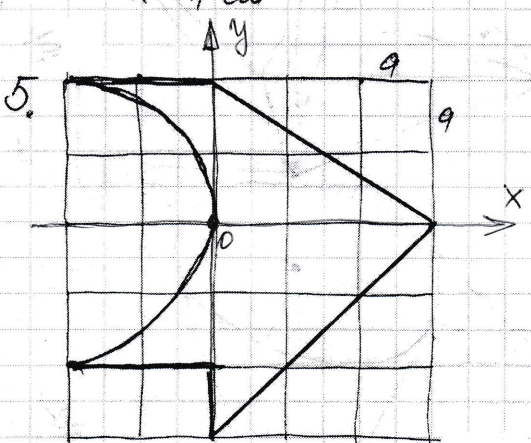
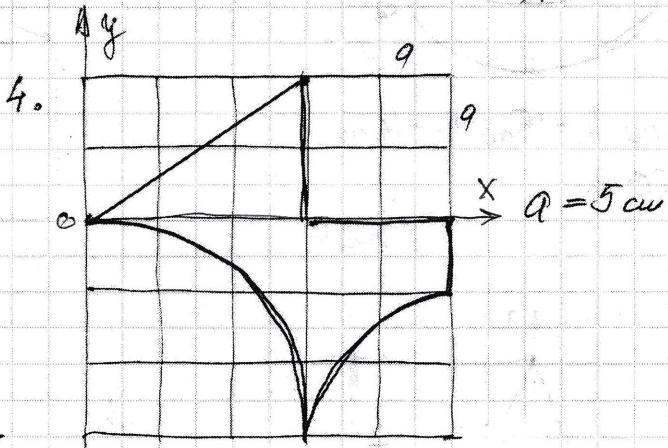
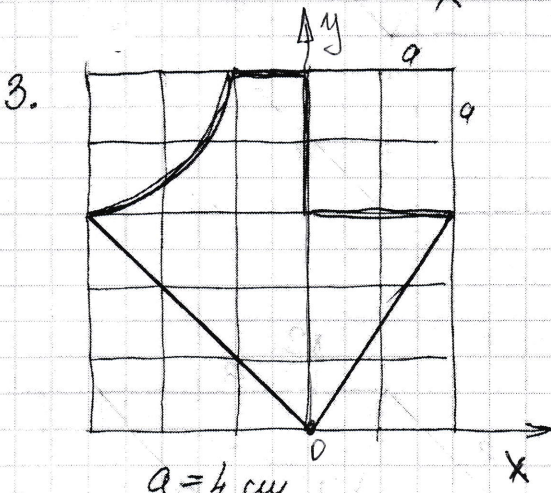
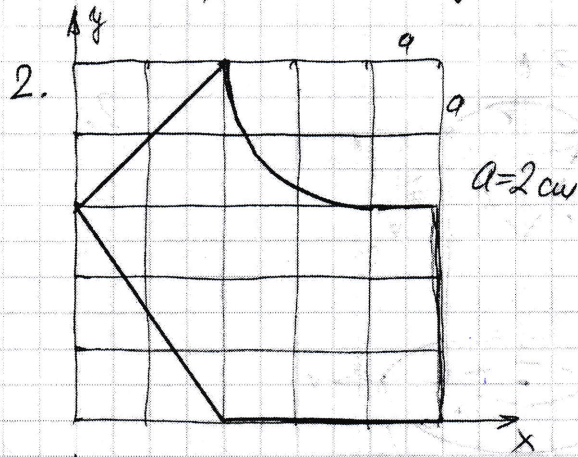
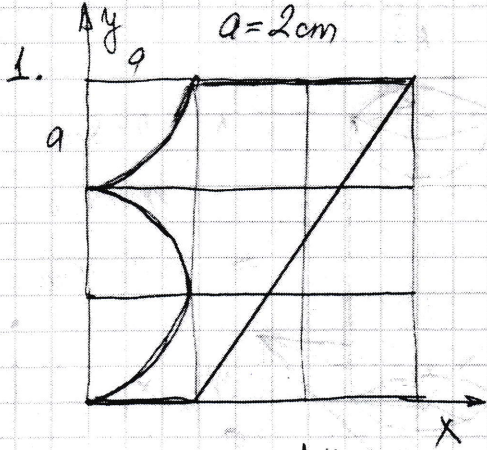
6

Тензиште

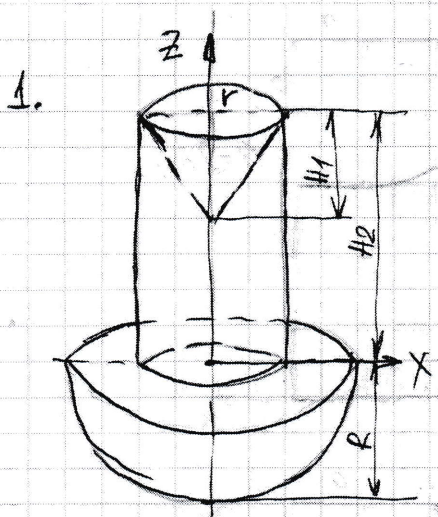
а) Одредити тензиште сложено површина



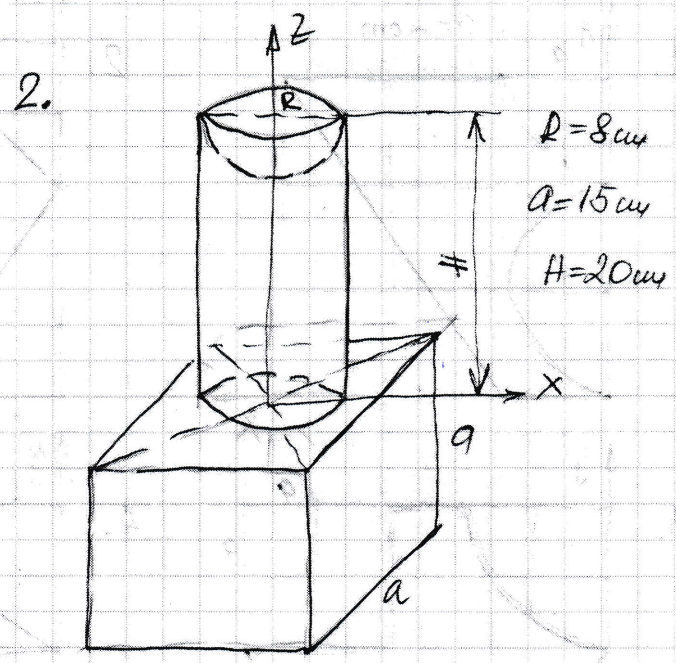
б) Определить величину угла наклона равносторонней



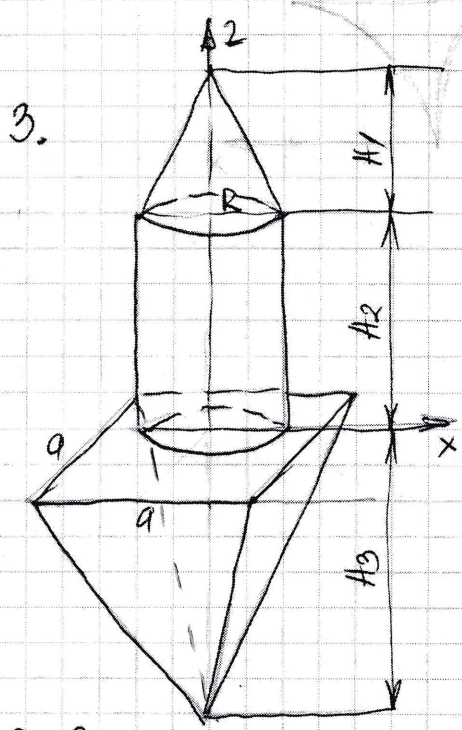
б) Определите площадь поверхности сложной фигуры



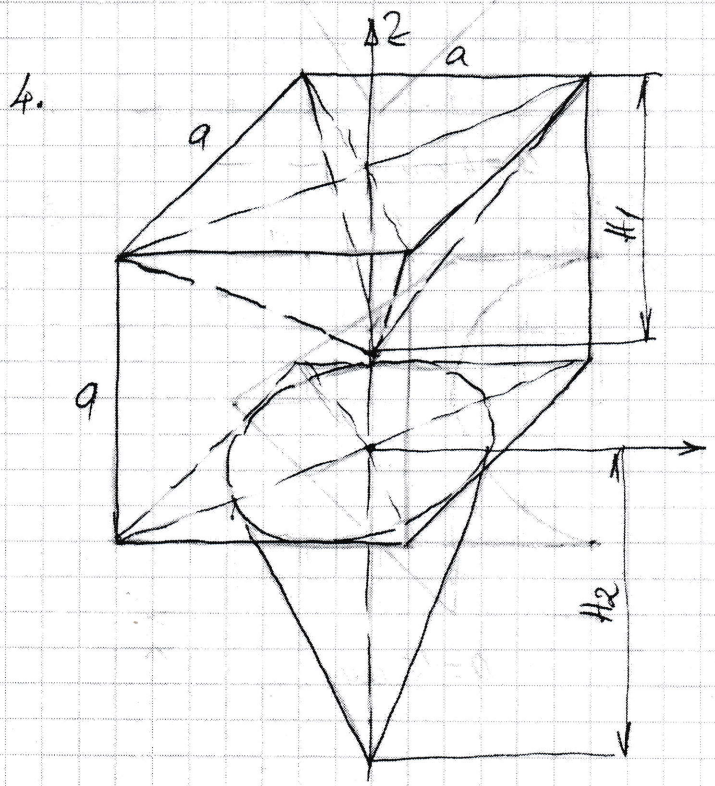
$r = 10 \text{ см}$ $H_1 = 15 \text{ см}$ $H_2 = 40 \text{ см}$
 $R = 20 \text{ см}$



$R = 8 \text{ см}$
 $a = 15 \text{ см}$
 $H = 20 \text{ см}$

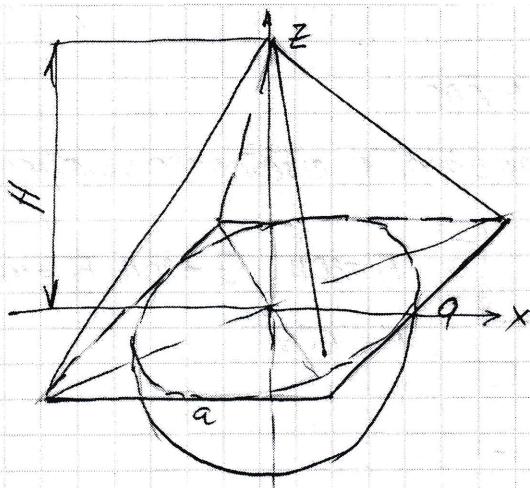


$R = 6 \text{ см}$
 $H_1 = 10 \text{ см}$
 $H_2 = 15 \text{ см}$
 $H_3 = 20 \text{ см}$
 $a = 10 \text{ см}$



$a = 5 \text{ см}$
 $H_1 = 30 \text{ см}$
 $H_2 = 20 \text{ см}$

5.



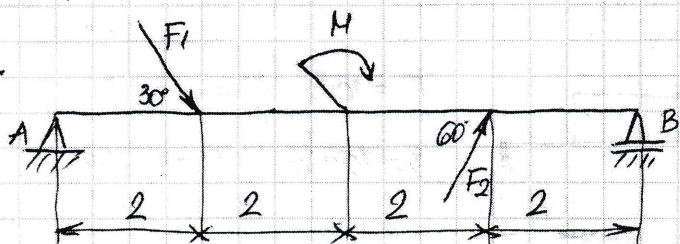
$a = 8 \text{ cm}$

$H = 12 \text{ cm}$

7

Силами чки дијаграми просие преде
Одредити општор ослжао и наурити ситинко дијаграме

1.

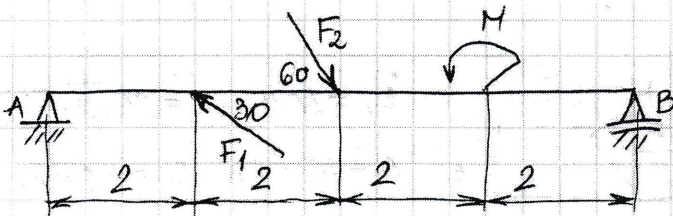


$F_1 = 300 \text{ N}$

$F_2 = 20 \text{ N}$

$M = 40 \text{ Nm}$

2.

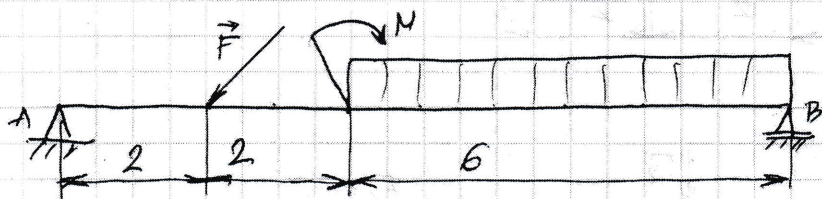


$F_1 = 20$

$F_2 = 40 \text{ N}$

$M = 20 \text{ Nm}$

3.

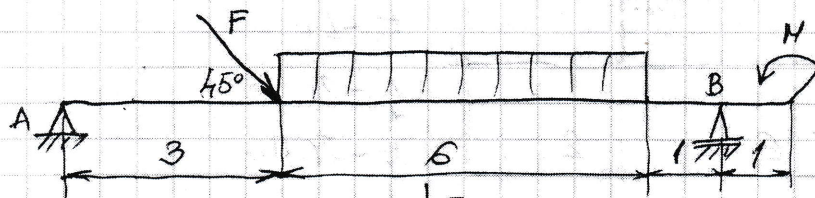


$F = 20\sqrt{2} \text{ N}$

$q = 10 \text{ N/m}$

$M = 15 \text{ Nm}$

4.

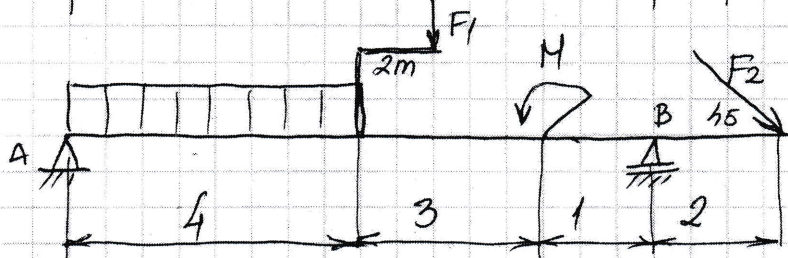


$F = 30\sqrt{2} \text{ N}$

$q = 10 \text{ N/m}$

$M = 20 \text{ Nm}$

5.

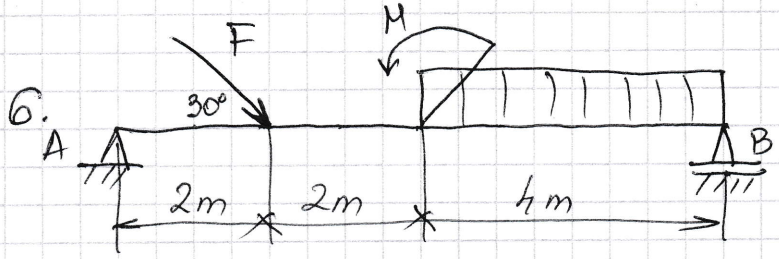


$F_1 = 8 \text{ N}$

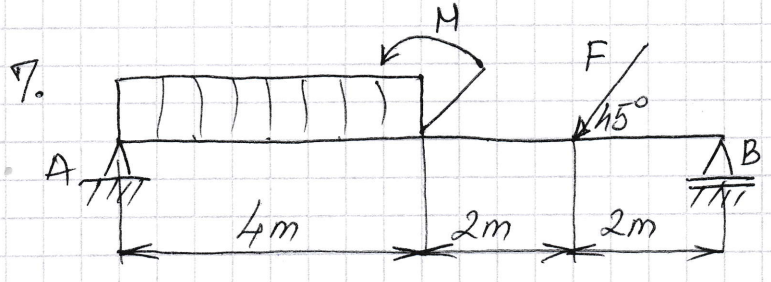
$F_2 = 10\sqrt{2} \text{ N}$

$M = 20 \text{ Nm}$

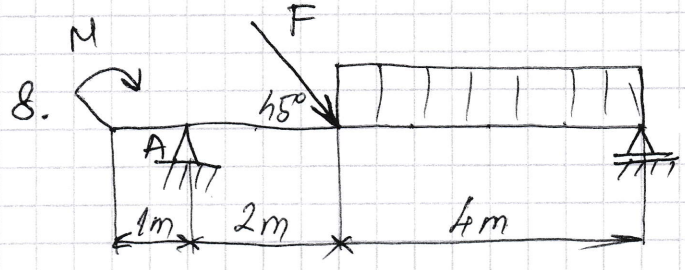
$q = 10 \text{ N/m}$



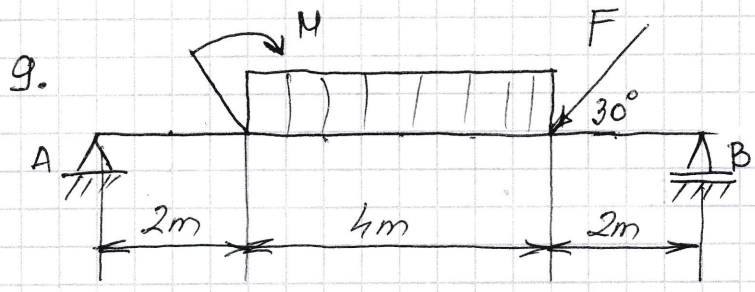
$F = 8 \text{ kN}$
 $q = 2 \text{ kN/m}$
 $M = 20 \text{ kNm}$



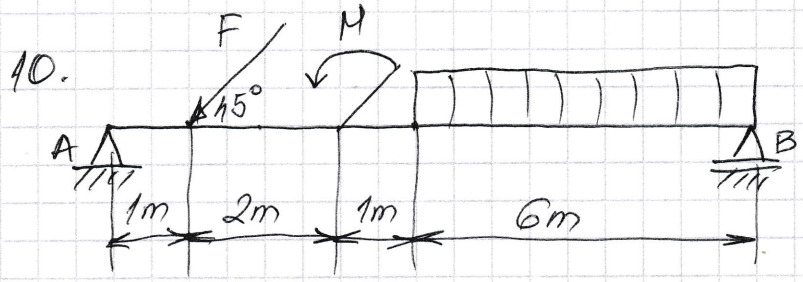
$F = 1\sqrt{2} \text{ kN}$
 $q = 1 \text{ kN/m}$
 $M = 5 \text{ kNm}$



$F = 12 \text{ kN}$ $q = 1,5 \text{ kN/m}$ $M = 6 \text{ kNm}$



$F = 6 \text{ kN}$ $M = 10 \text{ kNm}$
 $q = 2 \text{ kN/m}$



$F = 20\sqrt{2} \text{ kN}$
 $q = 5 \text{ kN/m}$
 $M = 30 \text{ kNm}$

8) Статички дијаграми конзоле

Одредили облик ослонаца и најкретнији статички дијаграме

