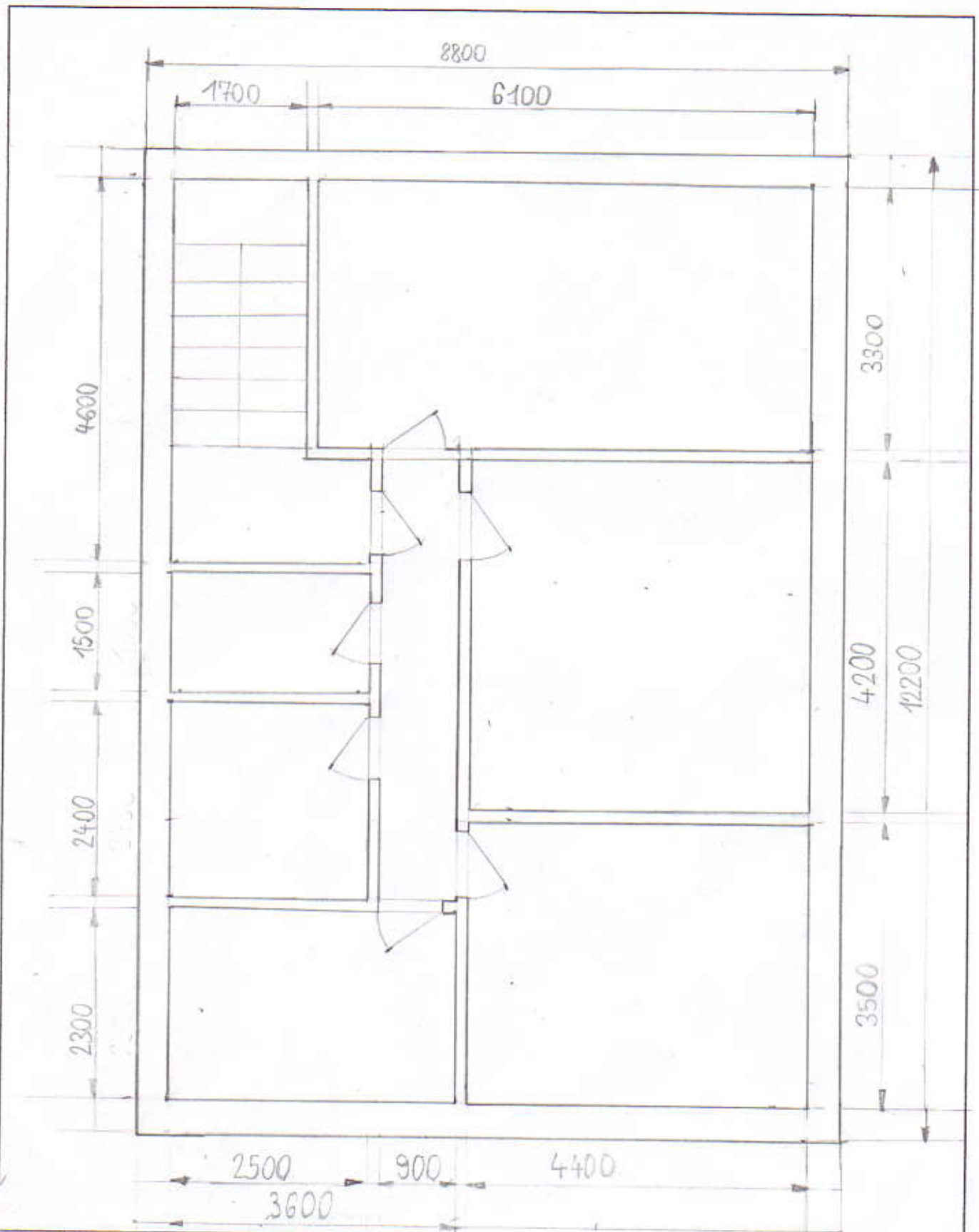


$h = 2500 \text{ mm}$



ENOTA: mm  
milimeter

| Kos       | Predmet     | Poz.           | Gradivo        | Mere         |
|-----------|-------------|----------------|----------------|--------------|
|           | Datum       | Ime in priimek |                | Osnovna šola |
| Risal     | 11.03.2018  |                |                | IDRIJA       |
| Pregledal |             |                |                |              |
| Merilo    | Predmet     |                | Razred         |              |
| 1:66      | MATEMATIKA. |                | 9C             |              |
|           |             |                | Številka risbe |              |
|           |             |                | 1              |              |

2D model v programu floorplanner.com



3D model v programu floorplanner.com



# PREISKOVALNA NALOGA NA TEMO PRIZEM

1.

1. kuhinja  
 $a = 3,3\text{m}$   
 $b = 6,1\text{m}$   
 $c = 2,5\text{m}$   


---

 $p_1 = 20,13\text{m}^2$   
 $V = 50,325\text{m}^3$

$$p_1 = a \cdot b$$

$$p_1 = 3,3\text{m} \cdot 6,1\text{m}$$

$$p_1 = 20,13\text{m}^2$$

$$V_1 = p \cdot c$$

$$V_1 = 20,13\text{m}^2 \cdot 2,5\text{m}$$

$$V_1 = 50,325\text{m}^3$$

stopnišče 1.del  
 $a = 1,70\text{m}$   
 $b = 4,60\text{m}$   


---

 $p = 7,82\text{m}^2$

$$p = a \cdot b$$

$$p = 1,70\text{m} \cdot 4,60\text{m}$$

$$p = 7,82\text{m}^2$$

stopnišče 2.del  
 $a = 0,80\text{m}$   
 $b = 1,10\text{m}$   


---

 $p = 0,88\text{m}^2$

$$p = a \cdot b$$

$$p = 0,8\text{m} \cdot 1,10\text{m}$$

$$p = 0,88\text{m}^2$$

stopnišče 1 in 2 del  
 $p_1 = 7,82\text{m}^2$   $c = 2,50\text{m}$   
 $p_2 = 0,88\text{m}^2$   


---

 $p_{\Sigma} = 8,70\text{m}^2$   
 $V = 21,75\text{m}^3$

$$p_{\Sigma} = p_1 + p_2$$

$$p_{\Sigma} = 7,82\text{m}^2 + 0,88\text{m}^2$$

$$p_{\Sigma} = 8,70\text{m}^2$$

$$V = p_{\Sigma} \cdot c$$

$$V = 8,7\text{m}^2 \cdot 2,5\text{m}$$

$$V = 21,75\text{m}^3$$

rebra 1  
 $a = 4,20\text{m}$   
 $b = 4,40\text{m}$   
 $c = 2,50\text{m}$   


---

 $p = 18,48\text{m}^2$   
 $V = 46,20\text{m}^3$

$$p_{r1} = a \cdot b$$

$$p_{r1} = 4,20\text{m} \cdot 4,40\text{m}$$

$$p_{r1} = 18,48\text{m}^2$$

$$V_{r1} = p \cdot c$$

$$V_{r1} = 18,48\text{m}^2 \cdot 2,50\text{m}$$

$$V_{r1} = 46,20\text{m}^3$$

rebra 2  
 $a = 3,50\text{m}$   
 $b = 4,40\text{m}$   
 $c = 2,50\text{m}$   


---

 $p = 15,40\text{m}^2$   
 $V = 38,50\text{m}^3$

$$p_{r2} = a \cdot b$$

$$p_{r2} = 3,50\text{m} \cdot 4,40\text{m}$$

$$p_{r2} = 15,40\text{m}^2$$

$$V_{r2} = p \cdot c$$

$$V_{r2} = 15,40\text{m}^2 \cdot 2,50\text{m}$$

$$V_{r2} = 38,50\text{m}^3$$

rebra 3  
 $a = 2,30\text{m}$   
 $b = 3,60\text{m}$   
 $c = 2,50\text{m}$   


---

 $p = 8,28\text{m}^2$   
 $V = 20,70\text{m}^3$

$$p_{r3} = a \cdot b$$

$$p_{r3} = 2,30\text{m} \cdot 3,60\text{m}$$

$$p_{r3} = 8,28\text{m}^2$$

$$V_{r3} = p \cdot c$$

$$V_{r3} = 8,28\text{m}^2 \cdot 2,50\text{m}$$

$$V_{r3} = 20,70\text{m}^3$$

### Kopalsica

$$a = 2,40 \text{ m}$$

$$b = 3,60 \text{ m}$$

$$c = 2,50 \text{ m}$$

$$p = 8,64 \text{ m}^2$$

$$V = 21,6 \text{ m}^3$$

$$p_{\text{kor}} = a \cdot b$$

$$p_{\text{kor}} = 2,40 \text{ m} \cdot 3,60 \text{ m}$$

$$p_{\text{kor}} = 8,64 \text{ m}^2$$

$$V_{\text{kor}} = p \cdot c$$

$$V_{\text{kor}} = 8,64 \text{ m}^2 \cdot 2,50 \text{ m}$$

$$V_{\text{kor}} = 21,6 \text{ m}^3$$

### stanišče

$$a = 1,50 \text{ m}$$

$$b = 3,60 \text{ m}$$

$$c = 2,50 \text{ m}$$

$$p = 5,40 \text{ m}^2$$

$$V = 13,5 \text{ m}^3$$

$$p_{\text{st}} = a \cdot b$$

$$p_{\text{st}} = 1,50 \text{ m} \cdot 3,60 \text{ m}$$

$$p_{\text{st}} = 5,40 \text{ m}^2$$

↓  
glej na nadalje

$$V_{\text{st}} = p \cdot c$$

$$V_{\text{st}} = 5,40 \text{ m}^2 \cdot 2,50 \text{ m}$$

$$V_{\text{st}} = 13,5 \text{ m}^3$$

### hodnik

$$a = 5,00 \text{ m}$$

$$b = 0,90 \text{ m}$$

$$c = 2,50 \text{ m}$$

$$p = 4,50 \text{ m}^2$$

$$V = 11,25 \text{ m}^3$$

$$p_{\text{h}} = a \cdot b$$

$$p_{\text{h}} = 5,00 \text{ m} \cdot 0,90 \text{ m}$$

$$p_{\text{h}} = 4,50 \text{ m}^2$$

$$V_{\text{h}} = p \cdot c$$

$$V_{\text{h}} = 4,50 \text{ m}^2 \cdot 2,50 \text{ m}$$

$$V_{\text{h}} = 11,25 \text{ m}^3$$

celotna površina sten = površina cele hiše - površina vseh prostorov

### Površina dimenzije hiše

$$a = 12,20 \text{ m}$$

$$b = 8,80 \text{ m}$$

$$p_{\text{hiše}} = 107,36 \text{ m}^2$$

$$p_{\text{sten}} =$$

$$p_{\text{hiše}} = a \cdot b$$

$$p_{\text{hiše}} = 12,20 \text{ m} \cdot 8,80 \text{ m}$$

$$p_{\text{hiše}} = 107,36 \text{ m}^2$$

$$p_{\text{sten}} = p_{\text{hiše}} - (p_{\text{kor}} + p_{\text{st}} + p_{\text{h}} + p_{\text{pr1}} + p_{\text{pr2}} + p_{\text{pr3}} + p_{\text{pr4}} + p_{\text{pr5}} + p_{\text{pr6}})$$

$$p_{\text{sten}} = 107,36 \text{ m}^2 - (20,137 \text{ m}^2 + 18,78 \text{ m}^2 + 15,40 \text{ m}^2 + 8,28 \text{ m}^2 + 8,64 \text{ m}^2 + 5,40 \text{ m}^2 + 4,50 \text{ m}^2)$$

$$p_{\text{sten}} = 107,36 \text{ m}^2 - 89,53 \text{ m}^2$$

$$p_{\text{sten}} = 17,83 \text{ m}^2$$

volumen sten = površina sten · višina prostorov

$$V_{\text{sten}} = 17,83 \text{ m}^2 \cdot 2,5 \text{ m}$$

$$V_{\text{sten}} = 44,575 \text{ m}^3$$

Površina sten je  $17,83 \text{ m}^2$ , volumen sten pa  $44,575 \text{ m}^3$ .

2. Urednost stanovanja po podatkih iz prostor 3. gov. siljavni je



Neto površina stanovanja = površina cele hiše - površina vseboten

Pneto sten = p hiše - p sten

Pneto sten = 107,36m<sup>2</sup> - 17,83m<sup>2</sup>

Pneto sten = 89,53m<sup>2</sup>

Cena stanovanja na 1m<sup>3</sup> =  $\frac{\text{urednost stanovanja}}{\text{neto površina stanovanja}} =$



€/m<sup>3</sup>



Cena stanovanja na hiše j na 1m<sup>2</sup>.

3. kuhinja

a = 3,30m

b = 6,10m

c = 2,50m

σ =

ps =

σ = 2a + 2b

σ = 2 · 3,30m + 2 · 6,10m

σ = 18,80m

ps = σ · c

ps = 18,80m · 2,5m

ps = 47m<sup>2</sup>

atopnišče

a = 4,00m c = 2,50m

b = 2,50m

c = 1,10m

č = 0,80m

d = 3,30m

σ = 12,30m

ps = 30,75m<sup>2</sup>

σ = a + b + c + č + d

σ = 4,00m + 2,50m + 1,10m + 0,80m + 3,30m

σ = 12,30m

ps = σ · c

ps = 12,30m · 2,50m

ps = 30,75m<sup>2</sup>

stanišče

a = 1,50m c = 2,50m

b = 2,50m

σ = 8m

ps = 20m<sup>2</sup>

σ = 2a + 2b

σ = 2 · 1,50m + 2 · 2,50m

σ = 3m + 5m

σ = 8m

ps = σ · c

ps = 8m · 2,5m

ps = 20m<sup>2</sup>

rešba 1

$$a = 4,20\text{m}$$

$$b = 4,40\text{m}$$

$$c = 2,50\text{m}$$

$$\sigma = 17,20\text{m}$$

$$px = 43\text{m}^2$$

$$\sigma = 2a + 2b$$

$$\sigma = 2 \cdot 4,20\text{m} + 2 \cdot 4,40\text{m}$$

$$\sigma = 8,40\text{m} + 8,80\text{m}$$

$$\sigma = \underline{17,20\text{m}}$$

$$px = \sigma \cdot c$$

$$px = 17,20\text{m} \cdot 2,50\text{m}$$

$$px = \underline{43\text{m}^2}$$

rešba 2

$$a = 3,50\text{m}$$

$$b = 4,40\text{m}$$

$$c = 2,50\text{m}$$

$$\sigma = 15,80\text{m}$$

$$px = 39,50\text{m}^2$$

$$\sigma = 2a + 2b$$

$$\sigma = 2 \cdot 3,50\text{m} + 2 \cdot 4,40\text{m}$$

$$\sigma = 7,00\text{m} + 8,80\text{m}$$

$$\sigma = \underline{15,80\text{m}}$$

$$px = \sigma \cdot c$$

$$px = 15,80\text{m} \cdot 2,50\text{m}$$

$$px = \underline{39,50\text{m}^2}$$

rešba 3

$$a = 2,30\text{m}$$

$$b = 3,60\text{m}$$

$$c = 2,50\text{m}$$

$$\sigma = 11,80\text{m}$$

$$px = 29,50\text{m}^2$$

$$\sigma = 2a + 2b$$

$$\sigma = 2 \cdot 2,30\text{m} + 2 \cdot 3,60\text{m}$$

$$\sigma = 4,60\text{m} + 7,20\text{m}$$

$$\sigma = 11,80\text{m}$$

$$px = \sigma \cdot c$$

$$px = 11,80\text{m} \cdot 2,50\text{m}$$

$$px = \underline{29,50\text{m}^2}$$

rešba 4

$$a = 5,00\text{m}$$

$$b = 0,90\text{m}$$

$$c = 2,50\text{m}$$

$$\sigma = 11,80\text{m}$$

$$px = 29,50\text{m}^2$$

$$\sigma = 2a + 2b$$

$$\sigma = 2 \cdot 5,00\text{m} + 2 \cdot 0,90\text{m}$$

$$\sigma = 10,00\text{m} + 1,80\text{m}$$

$$\sigma = \underline{11,80\text{m}}$$

$$px = \sigma \cdot c$$

$$px = 11,80\text{m} \cdot 2,50\text{m}$$

$$px = \underline{29,50\text{m}^2}$$

Površina sten = vse stenske stene skupaj + nato velikost liše

$$px = \text{vse } px \text{ sten} + p \text{ nato liše}$$

$$px = (47\text{m}^2 + 30,75\text{m}^2 + 20\text{m}^2 + 43\text{m}^2 + 39,50\text{m}^2 + 29,50\text{m}^2 + 29,50\text{m}^2) + 89,53\text{m}^2$$

$$px = 239,25 + 89,53\text{m}^2$$

$$px = \underline{328,78\text{m}^2}$$

$$\text{Količina barve: } 328,78\text{m}^2 : 100\text{m}^2 = 3,29$$

$$24,5\text{€} \dots \dots 16\text{l}$$

$$3 \cdot 24,5\text{€} + 12,8\text{€} = 86,3\text{€}$$

Vir: merkur.si

Plačati bom moral 86,3€ za 3. 16 litrsko in eno 5 litrsko barvo. Nato poraba še 16 l na 100m<sup>2</sup>, zato bom kupil 3. 16 litrsko in eno 5 litrsko barvo.

4. kopalnica

$$a = 2,40 \text{ m}$$

$$b = 2,50 \text{ m}$$

$$c = 2,50 \text{ m}$$

$$\sigma = 9,80 \text{ m}$$

$$p_s = 24,50 \text{ m}$$

$$\sigma = 2a + 2b$$

$$\sigma = 2 \cdot 2,40 \text{ m} + 2 \cdot 2,50 \text{ m}$$

$$\sigma = 4,80 \text{ m} + 5 \text{ m}$$

$$\sigma = \underline{9,80 \text{ m}}$$

$$p_s = \sigma \cdot c$$

$$p_s = 9,80 \text{ m} \cdot 2,50 \text{ m}$$

$$p_s = \underline{24,50 \text{ m}^2}$$

$$\text{površina tal} = a \cdot b$$

$$p_t = 2,40 \text{ m} \cdot 2,50 \text{ m}$$

$$p_t = \underline{6,00 \text{ m}^2}$$

Površina ploščic skupaj = površina sten + površina tal

$$p_p = p_s + p_t$$

$$p_p = 24,50 \text{ m}^2 + 6,00 \text{ m}^2$$

$$p_p = \underline{30,50 \text{ m}^2}$$

Površina vseh ploščic skupaj je  $30,50 \text{ m}^2$ .

Cena ploščic je  $14,90 \text{ €}$  za  $1 \text{ m}^2$ .

Vir: merkur.si

$$\text{površina neto} = 30,50 \text{ m}^2$$

$$\text{površina bruto} = 1,10 \cdot p_{\text{neto}} = 1,10 \cdot 30,50 \text{ m}^2 = \underline{33,55 \text{ m}^2} \approx 34 \text{ m}^2$$

$$\text{cena} = 33,55 \text{ m}^2 \cdot 14,90 \text{ €} = \underline{506,00 \text{ €}}$$

Čakup ploščic nas bo stal  $506,60 \text{ €}$ . ✓



## 5. Podatki

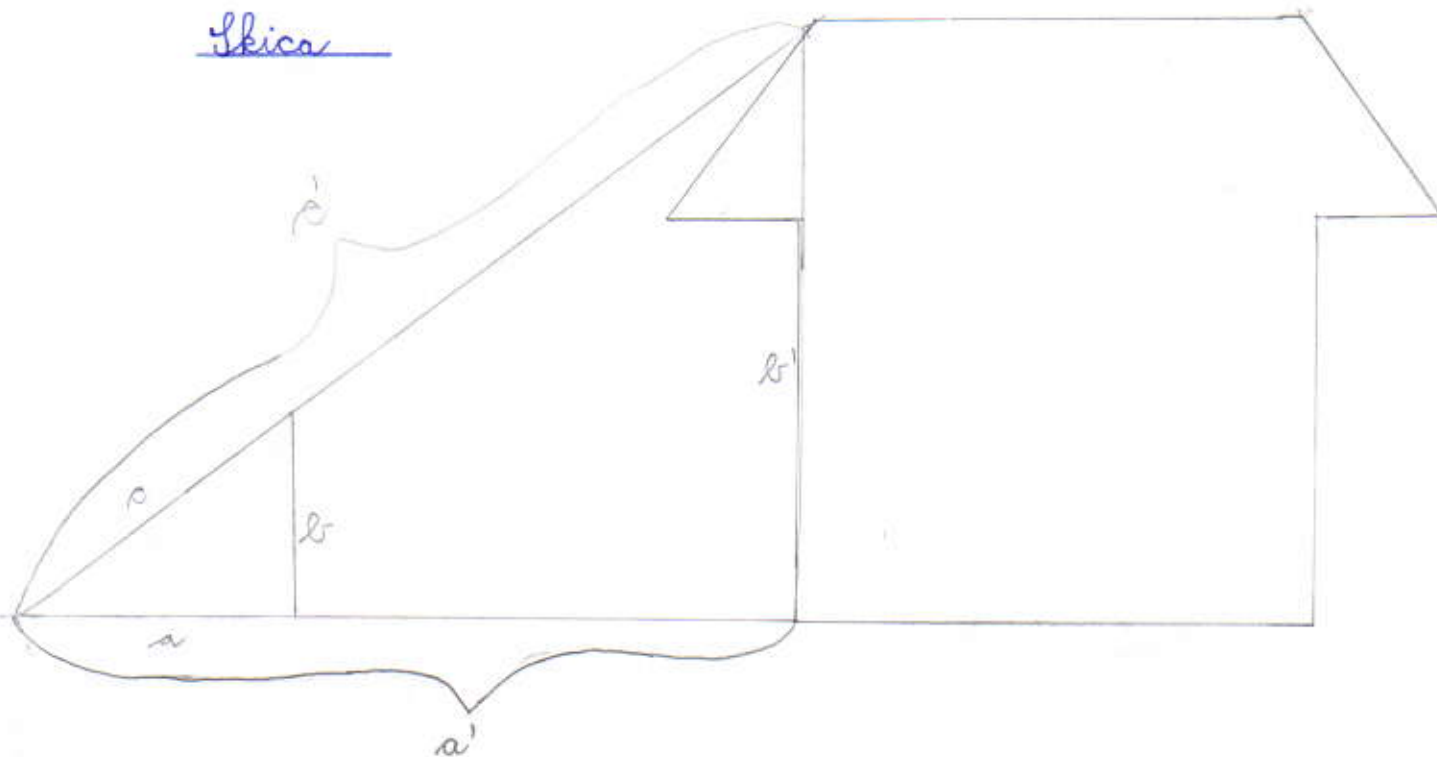
$$a = 1,5 \text{ km}$$

$$a' = 8 \text{ m}$$

$$b = 2,10 \text{ m}$$

$$b' = 10,80 \text{ m}$$

## Skica



## Izračun

$$a : a' = b : b'$$

$$1,50 \text{ m} : 8 \text{ m} = 2,10 \text{ m} : b'$$

$$1,5 b' = 16,2 \text{ m}$$

$$b' = 16,2 : 1,5$$

$$b' = \underline{\underline{10,80 \text{ m}}}$$

Moja liša je visoka 10,80 m.

✓