

VAJA PRED 2. PISNIM OCENJEVANJEM ZNANJA (2)

① a) $x:8 = 6:20$
 $x:8 = 3:10$
 $10x = 8 \cdot 3$
 $10x = 24 \quad |:10$
 $x = \frac{24}{10}$
 $x = 2,4$

b) $\frac{1}{3} : \frac{1}{4} = x:6$
 $1:12 = x:6$
 $12x = 6 \quad |:12$
 $x = \frac{6 \cdot 1}{12 \cdot 2}$
 $x = \frac{1}{2}$

c) $5:1 = (1-x):2$
 $1 \cdot (1-x) = 10$
 $1-x = 10$
 $-x = 10-1$
 $-x = 9 \quad |:(-1)$
 $x = -9$

② $k = c':c = 14:4 = 7:2$
 $k = b':b = 21:6 = 7:2$
 Trikotnika sta podobna, ker sta sosednji strani v enakem razmerju, uresni kot pa enako velik.
 $\triangle ABC \sim \triangle A'B'C'$

③ $\sigma = 24 \text{ cm}$
 $a' = 36 \text{ cm}$
 $b' = 66 \text{ cm}$
 $c' = 42 \text{ cm}$
 $\sigma' = a' + b' + c' = 36 + 66 + 42 = 144 \text{ cm}$
 $k = \sigma':\sigma$
 $k = 144:24 = 12:2 = 6:1$

$a':a = 6:1$
 $36:a = 6:1$
 $6a = 36 \quad |:6$
 $a = 6 \text{ cm}$

$b':b = 6:1$
 $66:b = 6:1$
 $6b = 66 \quad |:6$
 $b = 11 \text{ cm}$

$c':c = 6:1$
 $42:c = 6:1$
 $6c = 42 \quad |:6$
 $c = 7 \text{ cm}$

④ $x:2 = 37:1,7$
 $x:2 = 370:17$
 $17x = 2 \cdot 370$
 $17x = 740$
 $x = 740:17 = 43,52... = \underline{43,5 \text{ m}}$

⑤ premo
 $x_1:y_1 = x_2:y_2$
 $50:16 = 10:x$
 $25:8 = 10:x$
 $25x = 80 \quad |:25$
 $x = \frac{80}{25} = \underline{3,2 \text{ l}}$

⑥ 1. $3x = 21 \text{ cm}$
 2. $7x$
 3. $10x$
 $3x + 7x + 10x = 140$
 $20x = 140 \quad |:20$
 $x = 7$

7.

$$a = 2x = 14 \text{ cm}$$

$$b = 3x = 21 \text{ cm}$$

$$p = 294 \text{ cm}^2$$

$$\sigma = ?$$

$$p = a \cdot b$$

$$294 = 2x \cdot 3x$$

$$6x^2 = 294 \quad |:6$$

$$x^2 = 49 \quad |\sqrt{}$$

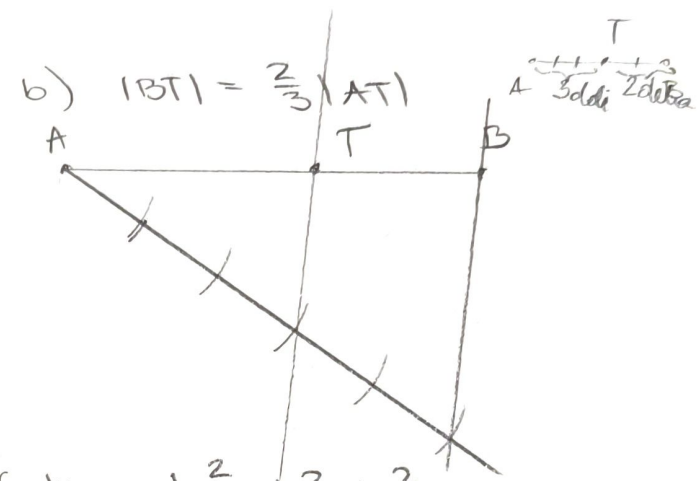
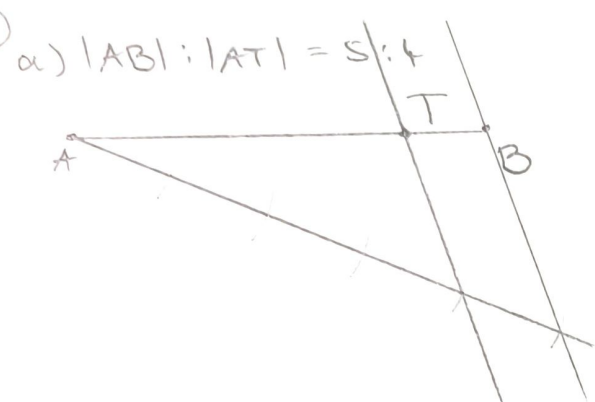
$$x = 7 \text{ cm}$$

$$\sigma = 2 \cdot 7 + 2 \cdot 21$$

$$\sigma = 14 + 42$$

$$\sigma = \underline{56 \text{ cm}}$$

8.



9.

$$P = 2 \cdot \psi + pl$$

$$P = 2 \cdot 24 + 336$$

$$P = 48 + 336$$

$$P = \underline{384 \text{ dm}^2}$$

$$\psi = \frac{k_1 \cdot k_2}{2}$$

$$\psi = \frac{6 \cdot 8}{2 \cdot 1}$$

$$\psi = 24 \text{ dm}^2$$

$$k_1 = 6 \text{ dm}$$

$$h = 10 \text{ dm}$$

$$k_2 = ?$$

$$k_2^2 = h^2 - k_1^2$$

$$k_2^2 = 10^2 - 6^2$$

$$k_2^2 = 100 - 36$$

$$k_2^2 = 64 \quad |\sqrt{}$$

$$k_2 = 8 \text{ dm}$$

$$pl = \sigma \cdot v$$

$$pl = 24 \cdot 14$$

$$pl = 336 \text{ dm}^2$$

$$\sigma = k_1 + k_2 + h$$

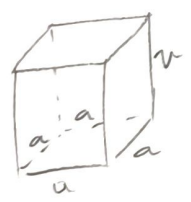
$$\sigma = 6 + 8 + 10$$

$$\sigma = 24 \text{ dm}$$

10.

$$a = 30 \text{ cm}$$

$$v = 20 \text{ cm}$$



$$P = ?$$

$$P = 2 \cdot \psi + pl$$

$$P = 2 \cdot 900 + 2400$$

$$P = 1800 + 2400$$

$$P = \underline{4200 \text{ cm}^2}$$

$$\psi = a^2$$

$$\psi = 30^2$$

$$\psi = 900 \text{ cm}^2$$

$$pl = \sigma \cdot v$$

$$pl = 4 \cdot a \cdot v$$

$$pl = 4 \cdot 30 \cdot 20$$

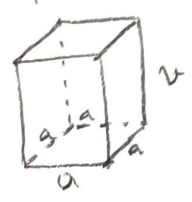
$$pl = 2400 \text{ cm}^2$$

11.

$$a = 12 \text{ cm}$$

$$P = 1248 \text{ cm}^2$$

$$V = ?$$



$$V = \psi \cdot v$$

$$V = 144 \cdot 20$$

$$V = \underline{2880 \text{ cm}^3}$$

$$\psi = a^2$$

$$\psi = 12^2$$

$$\psi = 144 \text{ cm}^2$$

$$pl = 4 \cdot a \cdot v$$

$$960 = 4 \cdot 12 \cdot v$$

$$48v = 960 \quad |:48$$

$$v = \underline{20 \text{ cm}}$$

$$P = 2 \cdot \psi + pl$$

$$1248 = 2 \cdot 144 + pl$$

$$1248 = 288 + pl$$

$$288 + pl = 1248$$

$$pl = 1248 - 288$$

$$pl = 960 \text{ cm}^2$$