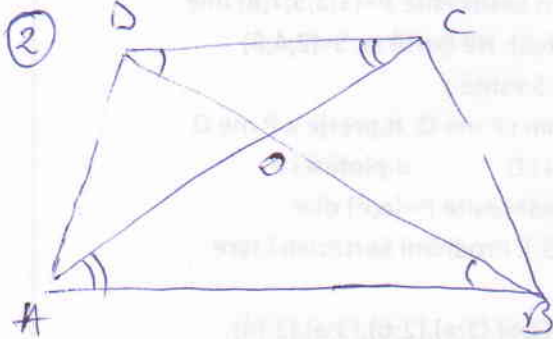


GRUPA A.

- ① Zgjidhje: Brujeto e trekëndeshit do të kenë gjatësi të përp. me nr. 5, 6, 8
 dm th. gjatësitë e tyre do të jenë $a=5x, b=6x, c=8x$.
 Brujeto me rregull është $a=20 \Rightarrow 5x=20 \Rightarrow x=4$.
 $a=5 \cdot 4=20\text{cm}$ $b=6 \cdot 4=24\text{cm}$ $c=8 \cdot 4=32\text{cm}$

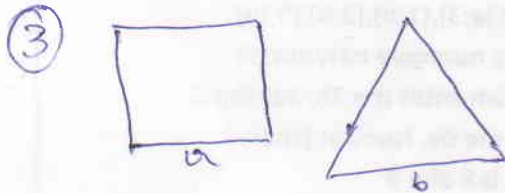


$AC=21\text{cm}$
 $OD=2\text{cm}$
 $OB=5\text{cm}$
 $OC=?$
 $OA=?$

Shprehje $OC=x \Rightarrow OA=21-x$
 $\triangle AOB \sim \triangle DOC$ sepse kanë
 këndet kongruente. ($AB \parallel DC$
 kurse AC dhe BD prerë)

$$\frac{AB}{DC} = \frac{OA}{OC} = \frac{OB}{OD} \Rightarrow \frac{21-x}{x} = \frac{5}{2} \Rightarrow$$

$$\Rightarrow 5x = 42 - 2x \Rightarrow 7x = 42 \Rightarrow x = \frac{42}{7} = 6 \quad OC=6 \quad OA=21 - \frac{42}{7} = \frac{147-42}{7} = \frac{105}{7} = 15$$



$P_4 = P_3$

$\frac{S_4}{S_3} = ?$

$P_4 = P_3 \Rightarrow 4a = 3b \Rightarrow b = \frac{4}{3}a$
 $\frac{S_4}{S_3} = \frac{a^2}{b^2\sqrt{3}} = \frac{4a^2}{b^2\sqrt{3}} = \frac{4a^2}{\frac{16}{9}a^2\sqrt{3}} = \frac{9}{4\sqrt{3}} = \frac{3\sqrt{3}}{4}$

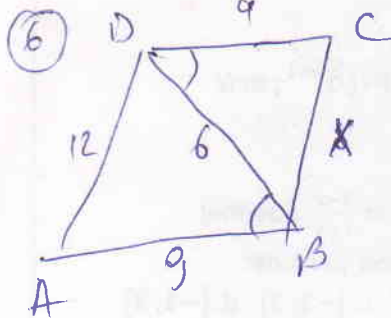
④ $\alpha_8 = \frac{180^\circ(8-2)}{8} = \frac{180^\circ \cdot 6}{8} = 135^\circ$ $\beta_8 = \frac{360^\circ}{8} = 45^\circ$



⑤ $a_3 = 8 \quad R\sqrt{3} = 8 \Rightarrow R = \frac{8}{\sqrt{3}}$

$a_4 = ? \quad a_4 = R\sqrt{2} = \frac{8}{\sqrt{3}} \cdot \sqrt{2} = \frac{8\sqrt{2} \cdot \sqrt{3}}{3} = \frac{8\sqrt{6}}{3}$

$\triangle ABD \sim \triangle BDC$ sepse $\hat{A}BD = \hat{B}DC$ dhe



$\frac{DC}{BD} = \frac{DB}{AB} \Rightarrow \frac{4}{6} = \frac{6}{9} = \frac{2}{3}$ R. II ingjeshmeria

$\Rightarrow \frac{BC}{AD} = \frac{2}{3} \Rightarrow \frac{x}{12} = \frac{2}{3} \Rightarrow x = \frac{24}{3} = 8$

⑦ $2x^3 - 3x^2 + 5x + 1$ me $x-2$

2	2	-3	5	1
	2	4	2	14
	2	1	7	15

$2x^3 - 3x^2 + 5x + 1 = (x-2)(2x^2 + x + 7) + 15$

$Q(x) = 2x^2 + x + 7 \quad r = 15$