

Planimetria - mieszanka zadań ciekawych ZI-TK

zadanie 94

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3D

1 zadanie 94

$$|CD| = 2$$

$$|AB| = 3$$

$$|DB| = 4$$

$$|AC| = 3$$

$$\triangle DEC \sim \triangle AEB (KKK)$$

$$\frac{|AB|}{|CD|} = \frac{3}{2}$$

$$\frac{|AE|}{|AC|} = \frac{3b}{5b} = \frac{3}{5} \quad |AE| = \frac{3}{5}|AC| \quad |AE| = \frac{3}{5} \cdot 3 = \frac{9}{5}$$

$$\frac{|CE|}{|AC|} = \frac{2b}{5b} = \frac{2}{5} \quad |CE| = \frac{2}{5}|AC| \quad |CE| = \frac{2}{5} \cdot 3 = \frac{6}{5}$$

$$\frac{|DE|}{|DB|} = \frac{2c}{5c} = \frac{2}{5} \quad |DE| = \frac{2}{5}|DB| \quad |DE| = \frac{2}{5} \cdot 4 = \frac{8}{5}$$

$$\frac{|EB|}{|DB|} = \frac{3c}{5c} = \frac{3}{5} \quad |EB| = \frac{3}{5}|DB| \quad |EB| = \frac{3}{5} \cdot 4 = \frac{12}{5}$$

$$|AEB| = 90^\circ \text{ bo } |AE|^2 + |EB|^2 = |AB|^2$$

$$\frac{81}{25} + \frac{144}{25} = 9 = |AB|^2$$

$$|AEB| = |DEC| = |AED| = |CEB| = 90^\circ$$

$$P = \frac{1}{2} \cdot \frac{9}{5} \cdot \frac{12}{5} + \frac{1}{2} \cdot \frac{9}{5} \cdot \frac{8}{5} + \frac{1}{2} \cdot \frac{8}{5} \cdot \frac{6}{5} + \frac{1}{2} \cdot \frac{6}{5} \cdot \frac{12}{5} = 6$$

