

Powtórka 4 z CKE

① PF

m - miebiskie

0,8m - czarne (100% - 20% = 80%)

m + 6 - zielone

$$m + (m + 6) = 0,8m + 48 \quad P$$

$$2m + 6 = 0,8m + 48$$

$$2m - 0,8m = 48 - 6$$

$$1,2m = 42 \quad | :1,2$$

$$m = 35$$

$$35 + 6 = 41 \text{ - zielone F}$$

② BD

$$3 \cdot (x + 1) = 2 \cdot \frac{1}{2}x + 2 \left(\frac{1}{2}x + 5 \right)$$

$$3x + 3 = x + x + 10$$

$$3x - 2x = 10 - 3$$

$$x = 7$$

$$x + 1 = 7 + 1 = 8 \quad B$$

$$Obw = 3 \cdot (x + 1) = 3 \cdot 8 = 24 \quad D$$

③ C

$$E_k = \frac{m \cdot v^2}{2} \quad | \cdot 2$$

$$2 \cdot E_k = m \cdot v^2 \quad | : m$$

$$\frac{2 \cdot E_k}{m} = v^2 \quad | \sqrt{\quad}$$

$$v = \sqrt{\frac{2E_k}{m}}$$

④. α, β, γ - kąty trójkąta

$$\alpha + \beta + \gamma = 180^\circ$$

$$\alpha = 2(\beta + \gamma) \quad | : 2$$

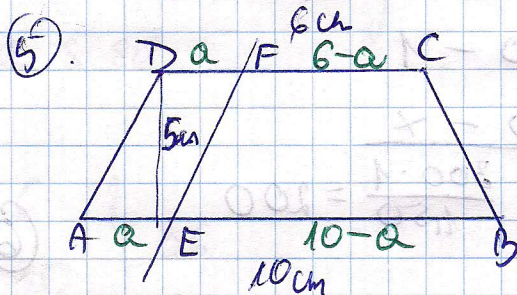
$$\beta + \gamma = \frac{1}{2}\alpha$$

$$\alpha + \frac{1}{2}\alpha = 180^\circ \quad | \cdot 2$$

$$2\alpha + \alpha = 360^\circ$$

$$3\alpha = 360^\circ \quad | : 3$$

$$\alpha = 120^\circ$$



$$P_{\square} = \frac{[(10-a) + (6-a)] \cdot 5}{2}$$

$$P_{\square} = \frac{(16 - 2a) \cdot 5}{2} = \frac{80 - 10a}{2}$$

$$P_{\square} = 40 - 5a$$

$$P_{\triangle} = a \cdot 5 = 5a$$

$$P_{\square} = 3 \cdot P_{\triangle}$$

$$40 - 5a = 3 \cdot (5a)$$

$$40 - 5a = 15a$$

$$-5a - 15a = -40$$

$$-20a = -40 \quad | : (-20)$$

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

$$|AE| = 2 \text{ cm}$$

⑥ x - magnesy z widkiem Wawelu - Adema

$12-x$ - magnesy ze smokiem - Adema

$2,5x$ - tyle reptacji z magnesy z widkiem

$4,5(12-x)$ - tyle reptacji z magnesy ze smokiem

$$2,5x + 4,5(12-x) = 36$$

$$2,5x + 54 - 4,5x = 36$$

$$-2x = -18 \quad | :(-2)$$

$$x = 9$$

$9 - 2,5 = 22,5$ - tyle reptacji Adem z magnesy z widkiem

$22,5 : 4,5 = 5$ - Basia kupiła 5 szt.

⑦

x - bilety dla dorosłych	- 6	} 36
$x+24$ - bilety dla dzieci	- 30	

$40 \cdot x$ - koszt b. dla dorosłych

$22(x+24)$ - koszt b. dla dzieci

$$40x + 22(x+24) = 900$$

$$40x + 22x + 528 = 900$$

$$62x = 372 \quad | :62$$

$$x = 6$$

Odp. Zakupiono 36 bilety.