

1. $\left(\frac{1}{2023}\right)^{2023} < \left(\frac{1}{2022}\right)^{2022}$

⊖

45.

4. Пусть x - вер. полог. в синий шар., а x_1 - с первого раза, а y - в зеленый шар

Тогда $P(x) = \frac{4}{10} \cdot 0,8 = 0,32$

$P(y) = \frac{6}{10} \cdot 0,9 = 0,54$

$P(z) = P(x) + P(y) = 0,32 + 0,54 = 0,86$

+ 35

3.

1) $25 + 25 = 50$

2) $800 : 50 = 16$

3) $16 \cdot 30 = 480$ мм.

+ 35

10. $V_1 = zV, V = y_k - V_k$

$AA_1 = \sqrt{4^2 + 4^2} = \sqrt{32} = 4\sqrt{2}$

$R_k = R_1 = 2\sqrt{2}, BD = 4\sqrt{2}, R \neq 8\sqrt{2}$

$DD = h = \sqrt{16 - 8} = \sqrt{8} = 2\sqrt{2}$

$V_{yk} = \frac{1}{3} \cdot \pi \cdot h \cdot (R^2 + R_1^2 + RR_1) = \frac{1}{3} \pi \cdot 2\sqrt{2} \cdot ((8\sqrt{2})^2 + (2\sqrt{2})^2 + 32) = 112\pi\sqrt{2}$

$V_k = \frac{1}{3} \pi R^2 h = \frac{1}{3} \pi (2\sqrt{2})^2 \cdot 2\sqrt{2} = 16\pi\sqrt{2}$

$V = 112\pi\sqrt{2} - 16\pi\sqrt{2} = 96\pi\sqrt{2}$

$V_k = 2V = 2 \cdot 96\pi\sqrt{2} = 192\pi\sqrt{2} \text{ см}^3$

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6. $K = \lfloor n/p \rfloor + \lfloor n/p^2 \rfloor + \lfloor n/p^3 \rfloor + \dots$
где $\lfloor x \rfloor$ - целая часть

Для 2: $k = \lfloor 2023/2 \rfloor + \lfloor 2023/4 \rfloor + \lfloor 2023/8 \rfloor + \dots = 1011 + 505 + 252 + 126 + 63 + 31 + 15 + 7 + 3 + 1 = 2006$

Для 3: $k = \lfloor 2023/3 \rfloor + \lfloor 2023/9 \rfloor + \lfloor 2023/27 \rfloor + \dots = 674 + 224 + 74 + 24 + 8 + 2 = 1006$

Для 337: $k = \lfloor 2023/337 \rfloor = 6$

$\min(2006, 1006, 6) = 6$

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