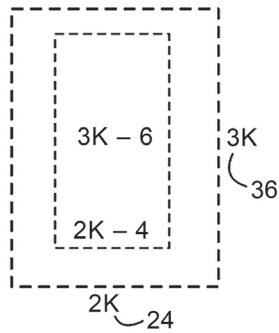


Professor: Marcos Paulo				
1	2	3	4	5
D	D	C	B	C
6	7	8	9	10
B	C	E	B	C

1.

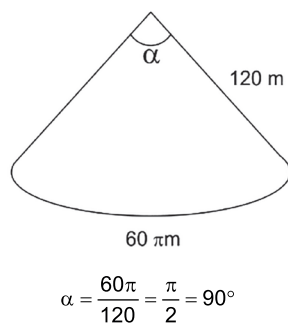
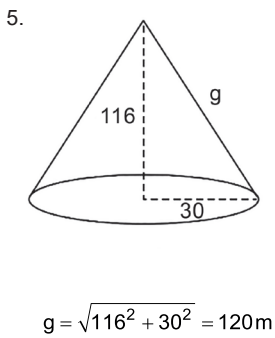
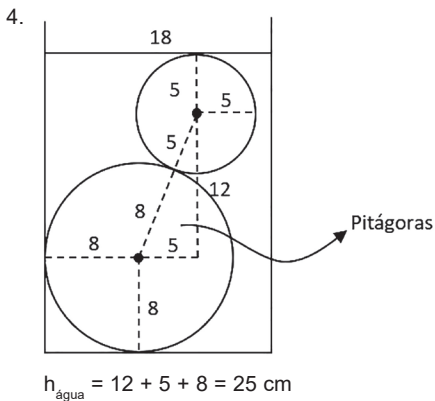


$$\begin{aligned} (2k - 4)(3k - 6) &= 600 \\ (k - 2)(3k - 6) &= 300 \\ (k - 2)(k - 2) &= 100 \\ k - 2 &= 10 \\ k &= 12 \\ \text{Área} &= 24 \cdot 36 = 864 \text{ m}^2. \end{aligned}$$

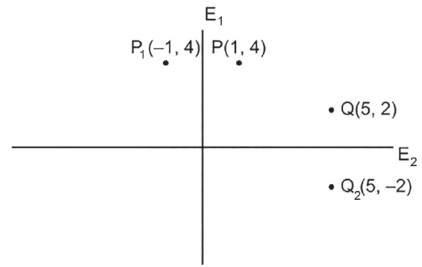
2. $t_A = t_B - 10$

$$\begin{aligned} t_A &= \frac{t_B}{1,2} \quad t_B = 1,2 t_A \\ 0,2 t_A &= 10 \\ t_A &= 50s. \end{aligned}$$

3. $635 \text{ mm} = 635 \text{ L em } 1 \text{ m}^2$
 Logo, $635 \cdot 900 \cdot 10^6 = 5\,715 \cdot 10^8 \text{ L} = 5,715 \cdot 10^{11} \text{ L}$.

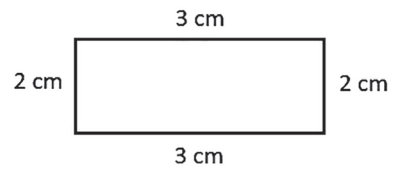


6.

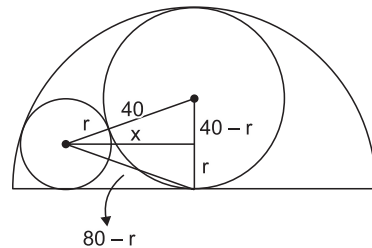


$$d_{P_1, Q_2} = \sqrt{(5 + 1)^2 + (-2 - 4)^2} = 6\sqrt{2}$$

7. Fechando as abas das caixas, podemos perceber uma abertura na tampa, conforme a figura abaixo.



8.



$$\begin{aligned} x^2 &= (40 + r)^2 - (40 - r)^2; \quad x^2 = (80 - r)^2 - 2 \\ 1600 + 80r + r^2 - 1600 + 80r - r^2 &= 6400 - 160r + r^2 - r^2 \\ 320r &= 6400 \\ \boxed{r = 20 \text{ m}} \end{aligned}$$

9. $P = P_{\text{sair } 2\text{ ou } 3} = \frac{1}{4} \cdot \frac{1}{5} \cdot 1 + \frac{1}{2} \cdot 1 \cdot 1 = \frac{1}{20} + \frac{1}{2}$
 $P = \frac{1 + 10}{20} = \frac{11}{20} = 55\%$

10. Basta observar as figuras em que os três planos se intersectam formando uma única reta.