

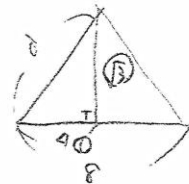
4エッジテスト 11/19

$$\begin{aligned} (1) \quad AH &= \frac{1}{2} AC \\ &= \frac{1}{2} \times 8\sqrt{2} \\ &= 4\sqrt{2} \end{aligned}$$

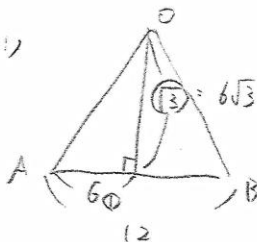
$$\begin{aligned} OH &= \sqrt{8^2 - (4\sqrt{2})^2} \\ &= \sqrt{64 - 32} \\ &= \sqrt{32} \\ &= 4\sqrt{2} \text{ m} \end{aligned}$$

$$(2) \quad V = 8 \times 8 \times 4\sqrt{2} \times \frac{1}{3} = \frac{256\sqrt{2}}{3} \text{ cm}^3$$

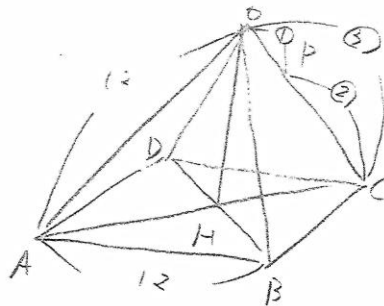
$$\begin{aligned} (3) \quad S &= \frac{8 \times 4\sqrt{3} \times \frac{1}{2} \times 4}{\text{正三角形4,}} + \frac{8 \times 8}{\text{底面}} \\ &= \frac{64\sqrt{3} + 64}{\text{cm}^2} \end{aligned}$$



2 (1)



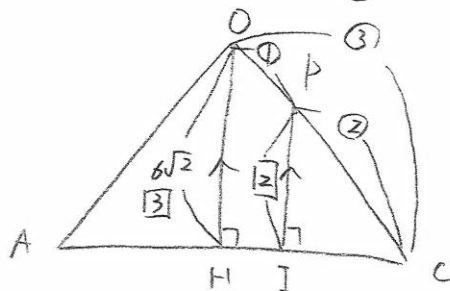
$$\begin{aligned} S &= 12 \times 6\sqrt{3} \times \frac{1}{2} \times 4 + 12^2 \\ &= 144\sqrt{3} + 144 \text{ (cm}^2\text{)} \quad \textcircled{5} \end{aligned}$$



$$\begin{aligned} (2) \quad AH &= \frac{1}{2} AC = \frac{1}{2} \times 12\sqrt{2} \\ &= 6\sqrt{2} \end{aligned}$$

$$\begin{aligned} V &= 12 \times 12 \times 6\sqrt{2} \times \frac{1}{3} \\ &= 288\sqrt{2} \text{ cm}^3 \quad \textcircled{5} \end{aligned}$$

$$\begin{aligned} OH &= \sqrt{12^2 - (6\sqrt{2})^2} \\ &= \sqrt{144 - 72} \\ &= \sqrt{72} \\ &= 6\sqrt{2} \end{aligned}$$



(3) $\triangle OHC \sim \triangle PIC$

$OH : PI = 3 : 2$

$6\sqrt{2} : PI = 3 : 2$

$PI = \frac{6\sqrt{2} \times 2}{3}$

$PI = 4\sqrt{2}$

$(P-BCD) = 12 \times 12 \times \frac{1}{2} \times 4\sqrt{2} \times \frac{1}{3}$

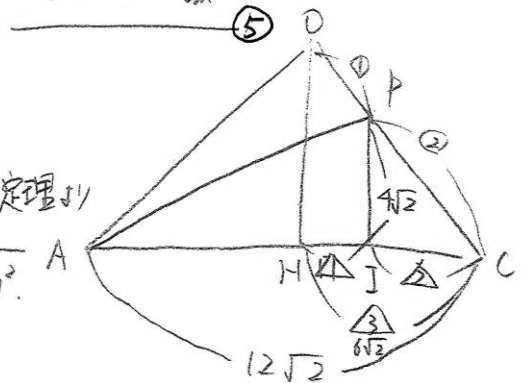
$= 96\sqrt{2} \text{ cm}^3$

(4) $IC = 6\sqrt{2} \times \frac{2}{3} = 4\sqrt{2}$

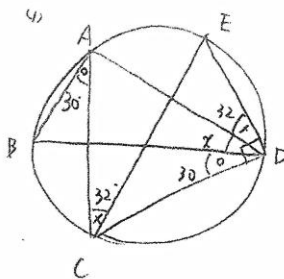
$AI = AC - IC$
 $= 12\sqrt{2} - 4\sqrt{2}$
 $= 8\sqrt{2}$

$\triangle PAI$ で三平方の定理より

$AP = \sqrt{(8\sqrt{2})^2 + (4\sqrt{2})^2}$
 $= \sqrt{128 + 32}$
 $= \sqrt{160}$
 $= 4\sqrt{10}$ (5)



<challenge!>

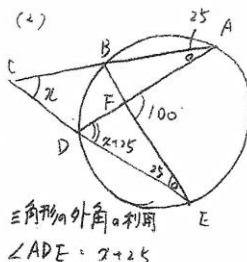


$CD, ED \perp AC$

$\angle CDE = 90^\circ$

$\angle x = 90 - (30 + 32)$

$= 28^\circ$
 (12)

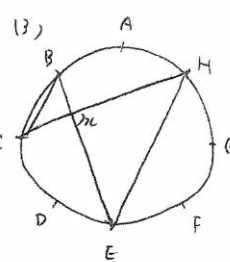


三角形の外角を利用

$\angle ADE = x + 25$

$x + 25 + 25 = 100$

$x = 50^\circ$
 (12)



$BC, HE \perp AC$

弧17分の中心角 $360 \div 8 = 45^\circ$

円周角 $= 45 \times \frac{1}{2} = 22.5^\circ$

$\angle CHE = \angle BEH = 22.5 \times 2$
 $= 45^\circ$

$x = 180 - (45 + 45)$

$= 90^\circ$
 (12)

四、	(2)	(1)	三、	③	①	二	④	①	一	解答	冬 + 0.5 点
厚い	①	①		はいじよ	そうおん		組織	仲裁			
	窮	利			②		⑤	②			
	②	②			くうきよ		開放	筋肉			
	究	効						③			
								見聞			