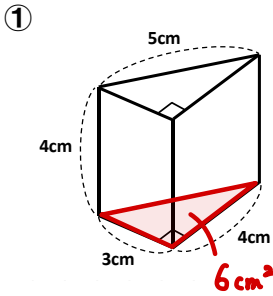


空間図形（体積）

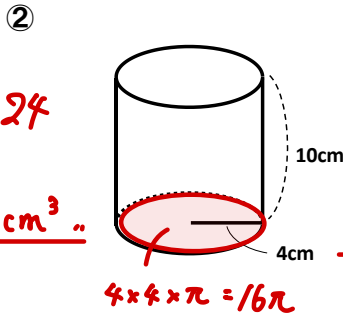
組 番 名前

1 次の立体の体積を求めなさい。



$$6 \times 4 = 24$$

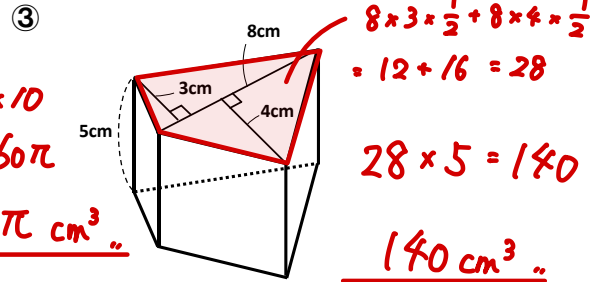
$$\underline{24 \text{ cm}^3}$$



$$16\pi \times 10$$

$$= 160\pi$$

$$\underline{160\pi \text{ cm}^3}$$

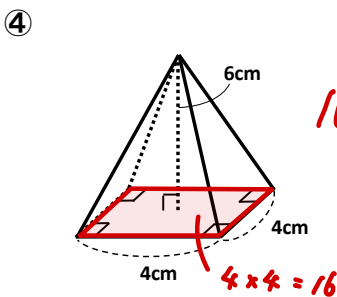


$$8 \times 3 \times \frac{1}{2} + 8 \times 4 \times \frac{1}{2}$$

$$= 12 + 16 = 28$$

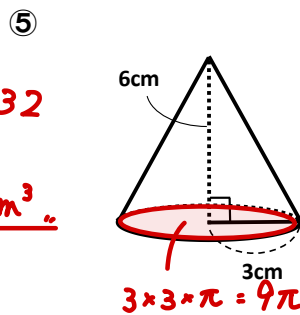
$$28 \times 5 = 140$$

$$\underline{140 \text{ cm}^3}$$



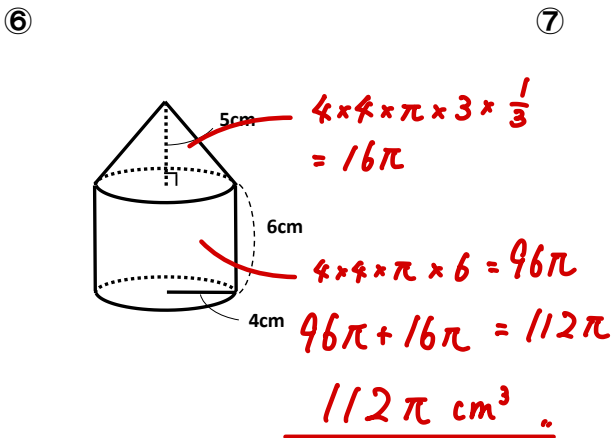
$$16 \times 6 \times \frac{1}{3} = 32$$

$$\underline{32 \text{ cm}^3}$$



$$9\pi \times 6 \times \frac{1}{3} = 18\pi$$

$$\underline{18\pi \text{ cm}^3}$$



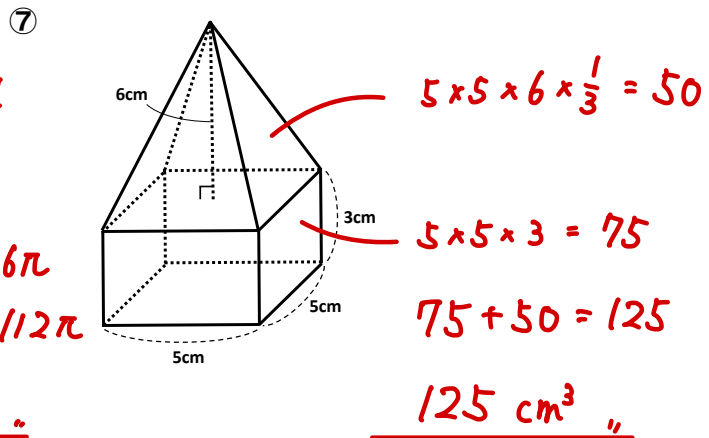
$$4 \times 4 \times \pi \times 3 \times \frac{1}{3}$$

$$= 16\pi$$

$$4 \times 4 \times \pi \times 6 = 96\pi$$

$$96\pi + 16\pi = 112\pi$$

$$\underline{112\pi \text{ cm}^3}$$



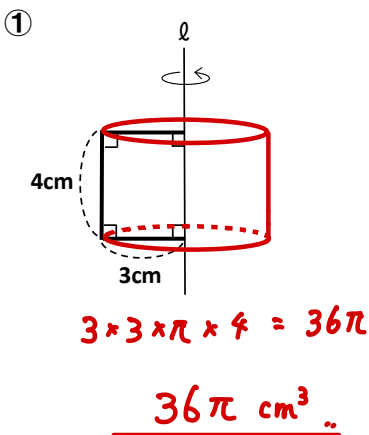
$$5 \times 5 \times 6 \times \frac{1}{3} = 50$$

$$5 \times 5 \times 3 = 75$$

$$75 + 50 = 125$$

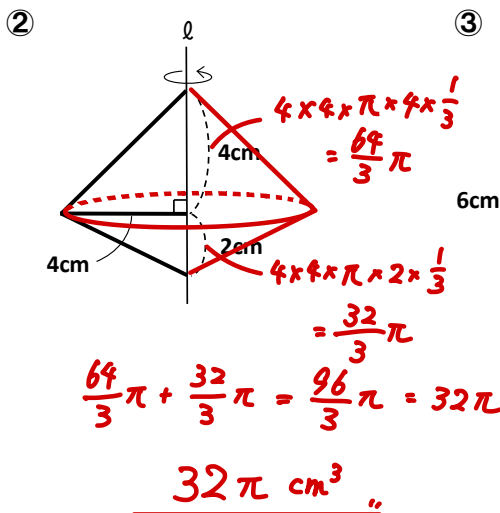
$$\underline{125 \text{ cm}^3}$$

2 次の図を、直線ℓを回転の軸として1回転させてできる立体の体積を求めなさい。



$$3 \times 3 \times \pi \times 4 = 36\pi$$

$$\underline{36\pi \text{ cm}^3}$$



$$4 \times 4 \times \pi \times 4 \times \frac{1}{3}$$

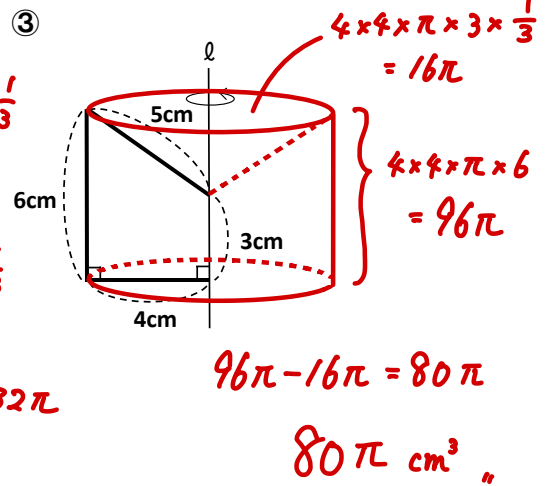
$$= \frac{64}{3}\pi$$

$$4 \times 4 \times \pi \times 2 \times \frac{1}{3}$$

$$= \frac{32}{3}\pi$$

$$\frac{64}{3}\pi + \frac{32}{3}\pi = \frac{96}{3}\pi = 32\pi$$

$$\underline{32\pi \text{ cm}^3}$$



$$4 \times 4 \times \pi \times 3 \times \frac{1}{3}$$

$$= 16\pi$$

$$4 \times 4 \times \pi \times 6$$

$$= 96\pi$$

$$96\pi - 16\pi = 80\pi$$

$$\underline{80\pi \text{ cm}^3}$$