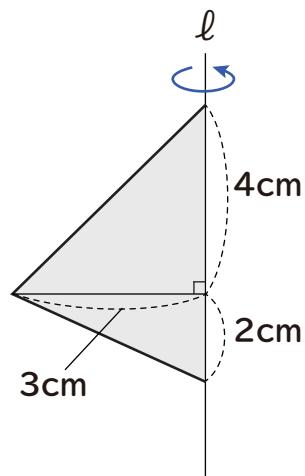


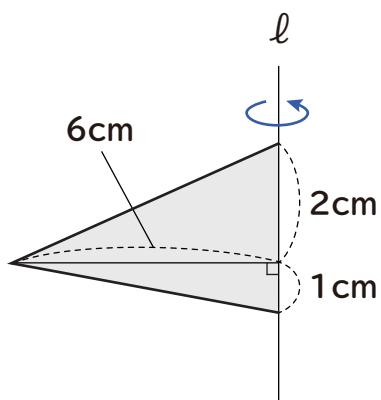
# 角すいや円すいの体積

次の図形を、直線  $\ell$  で 1 回転させた時にできる立体の体積を求めましょう。

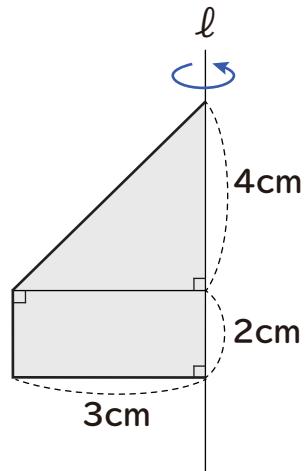
①



②



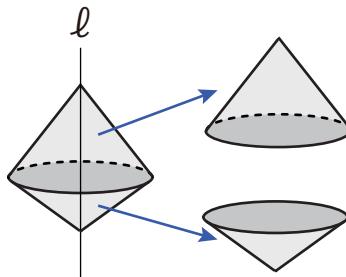
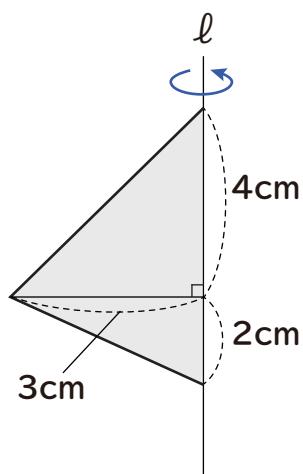
③



# 角すいや円すいの体積

次の図形を、直線  $\ell$  で 1 回転させた時にできる立体の体積を求めましょう。

①



$$\text{底面積} : \pi \times 3 \times 3 = 9\pi$$

$$\text{体積} : \frac{1}{3} \times 9\pi \times 4 = 12\pi$$

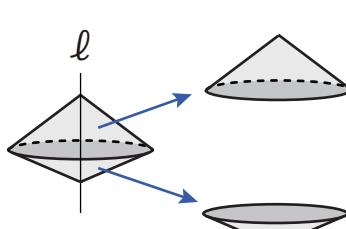
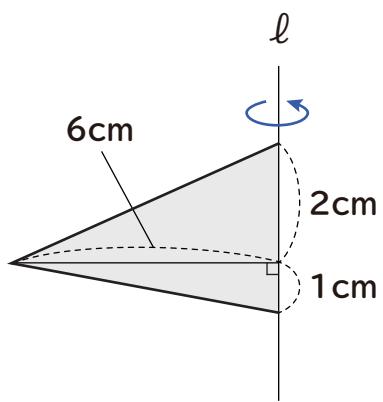
$$\text{底面積} : \pi \times 3 \times 3 = 9\pi$$

$$\text{体積} : \frac{1}{3} \times 9\pi \times 2 = 6\pi$$

$$12\pi + 6\pi = 18\pi$$

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

②



$$\text{底面積} : \pi \times 6 \times 6 = 36\pi$$

$$\text{体積} : \frac{1}{3} \times 36\pi \times 2 = 24\pi$$

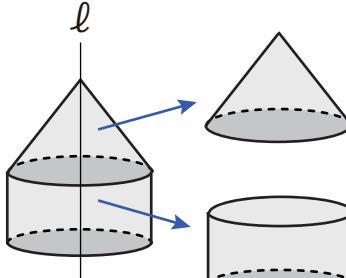
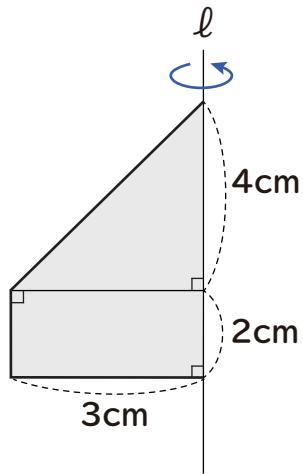
$$\text{底面積} : \pi \times 6 \times 6 = 36\pi$$

$$\text{体積} : \frac{1}{3} \times 36\pi \times 1 = 12\pi$$

$$24\pi + 12\pi = 36\pi$$

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

③



$$\text{底面積} : \pi \times 3 \times 3 = 9\pi$$

$$\text{体積} : \frac{1}{3} \times 9\pi \times 4 = 12\pi$$

$$\text{底面積} : \pi \times 3 \times 3 = 9\pi$$

$$\text{体積} : 9\pi \times 2 = 18\pi$$

$$12\pi + 18\pi = 30\pi$$

$$\underline{\underline{30\pi \text{ cm}^3}}$$