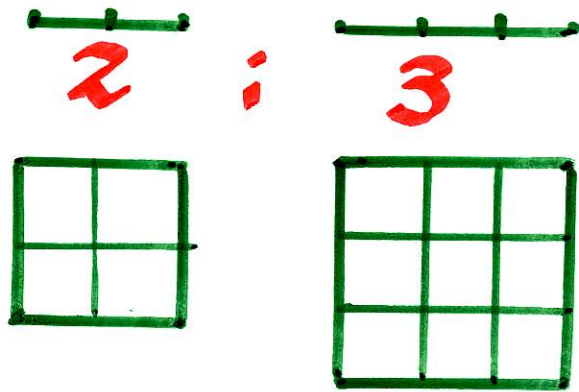


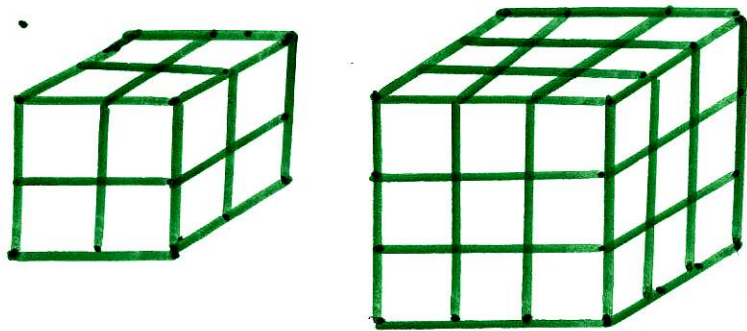
B6 **4** 47%

相似

線 : 比 1次元
面積 : 2乘 2次元
體積 : 3乘 3次元



$$2^2 = 4 : 3^2 = 9$$



$$8 = 2^3 : 27 = 3^3$$

$$\text{面積比 } 4\pi : 9\pi \Rightarrow 2^2 : 3^2$$

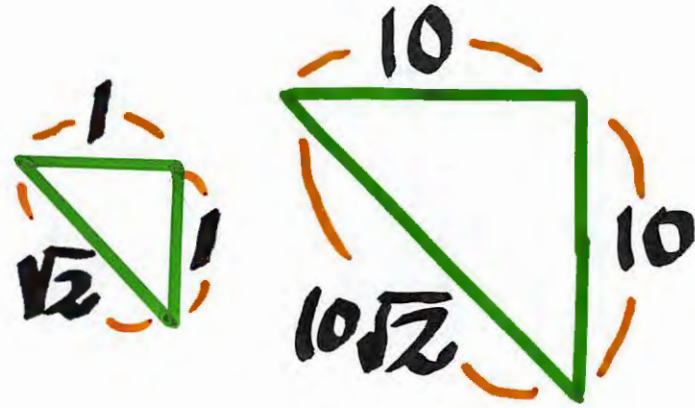
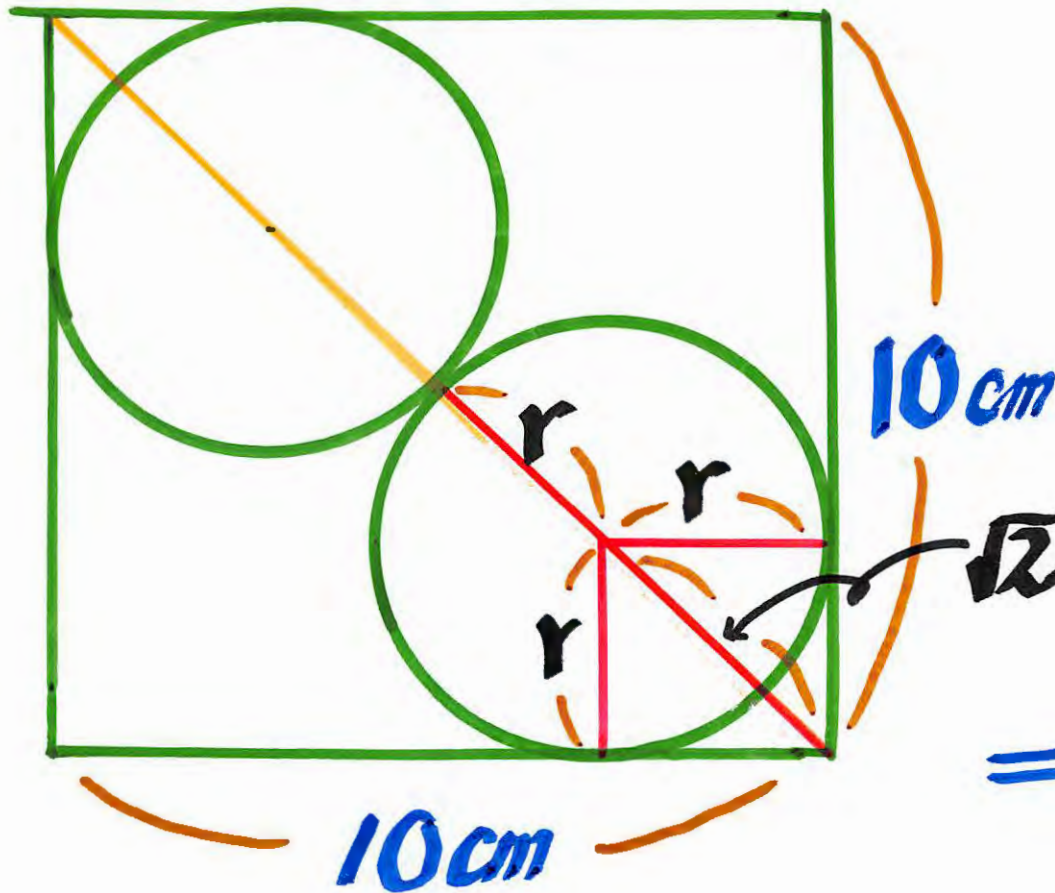
$$\text{體積比 } 2^3 : 3^3 \rightarrow 8 : 27$$

$$A : B = 5\pi : x = 8 : 27$$

$$x = \frac{27 \times 5\pi}{8} = \frac{135\pi}{8}$$

B6 **5**

37%



$$2 \cdot (r + \sqrt{2}r) = 10\sqrt{2}$$

$$r = \frac{5\sqrt{2}}{1 + \sqrt{2}}$$

$$= \frac{5\sqrt{2}(\sqrt{2}-1)}{(\sqrt{2}+1)(\sqrt{2}-1)} = 10 - 5\sqrt{2}$$

$$\sqrt{2} = 1.4$$

$$= 10 - 5 \cdot 1.4 = 3 \text{ cm}$$

B6 **8** 80%

水量A: $24a$

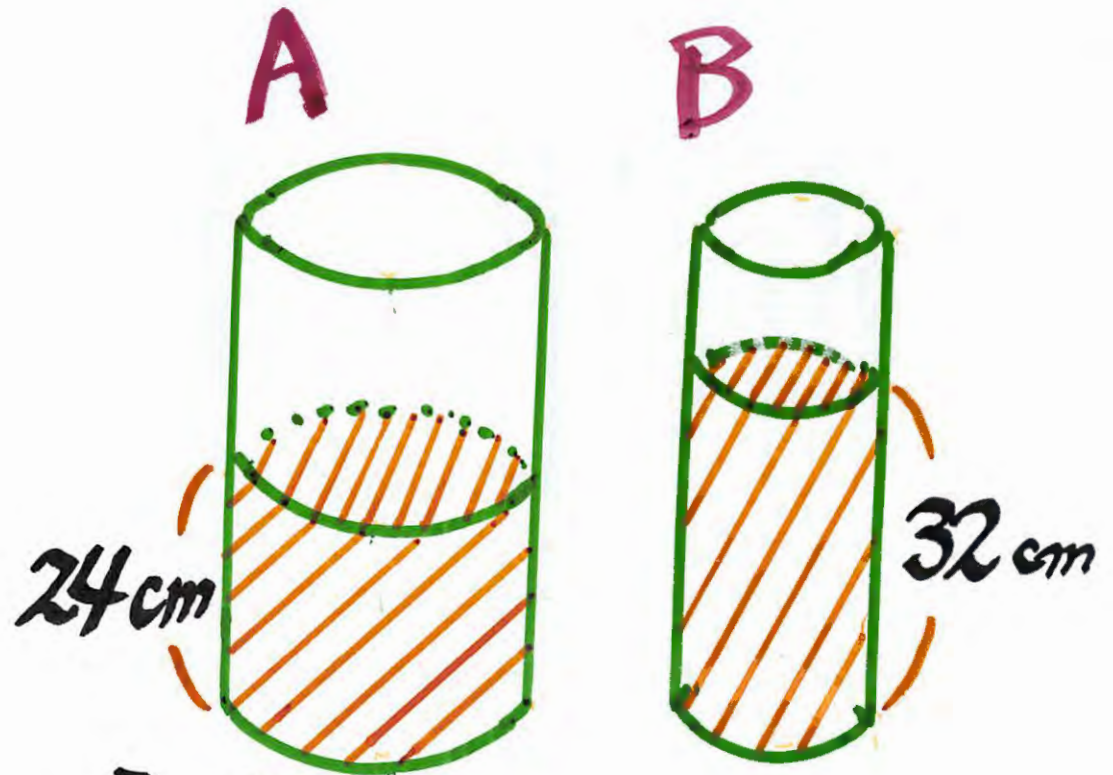
水量B: $32b$

$24a = 32b$ ①

同高 $x =$ 底面積 $(a+b)$

$24a + 32b = (a+b) \cdot x$ ②

① & ② $\rightarrow 64b = (\frac{7}{3}b)x \rightarrow x = \frac{64 \times 3}{7} = \underline{\underline{27.4 \text{ cm}}}$

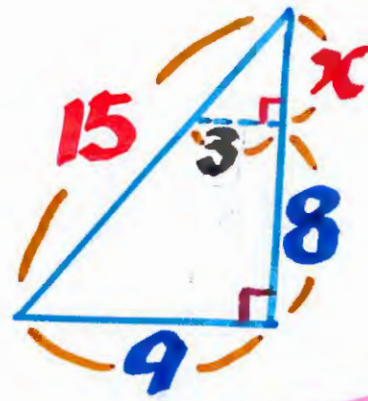
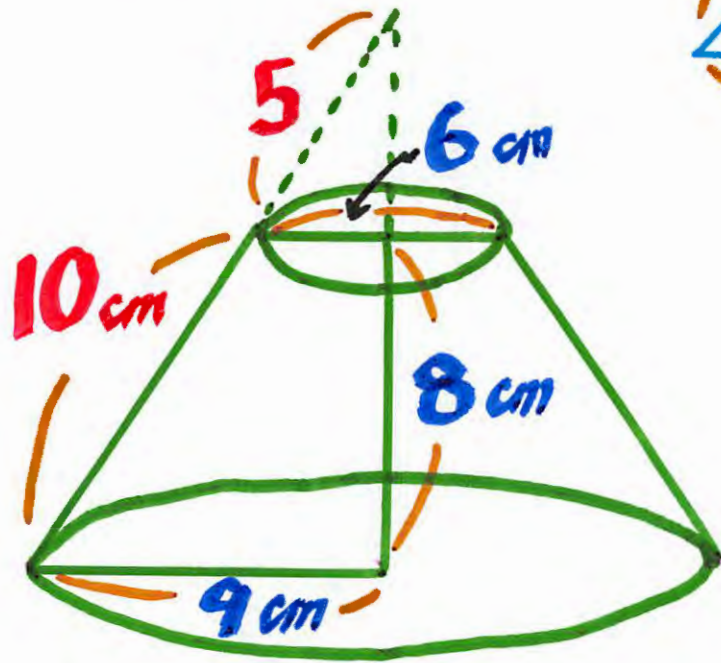


底面積

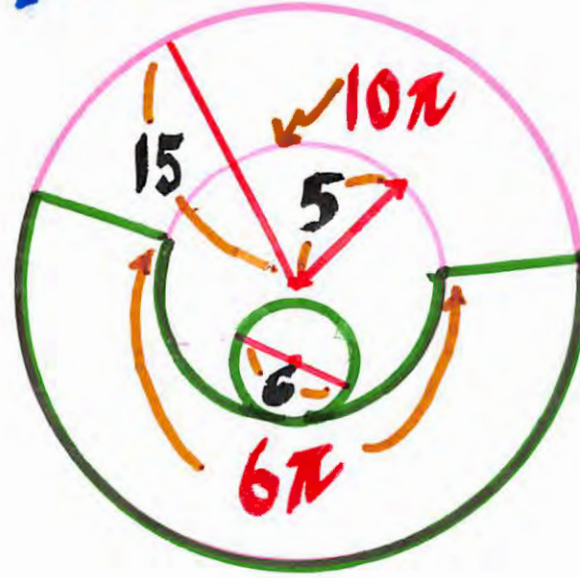
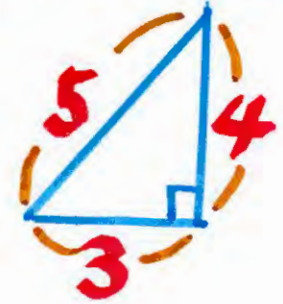
a

b

B6 **10** 81%



$$\frac{3}{9} = \frac{x}{x+8} \Rightarrow x = 4$$



上: $3^2\pi = \underline{9\pi}$

下: $9^2\pi = \underline{81\pi}$

側面: $(15^2\pi - 5^2\pi) \times \frac{6}{10} = \underline{120\pi}$

$9 + 81 + 120 = 210$ $\pi \text{ cm}^3$