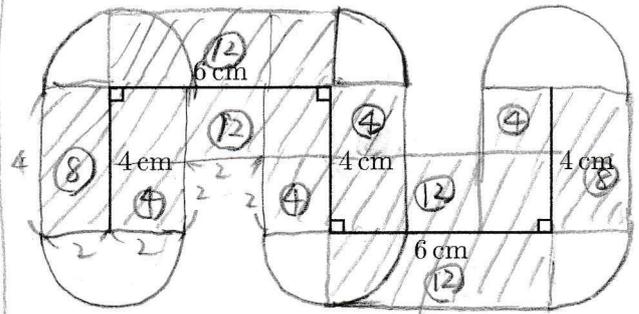


半径2cmの円の中心が図の太線をくまなく動くとき、円が通過してできる図形の面積を求めなさい。ただし、円周率は3.14とします。



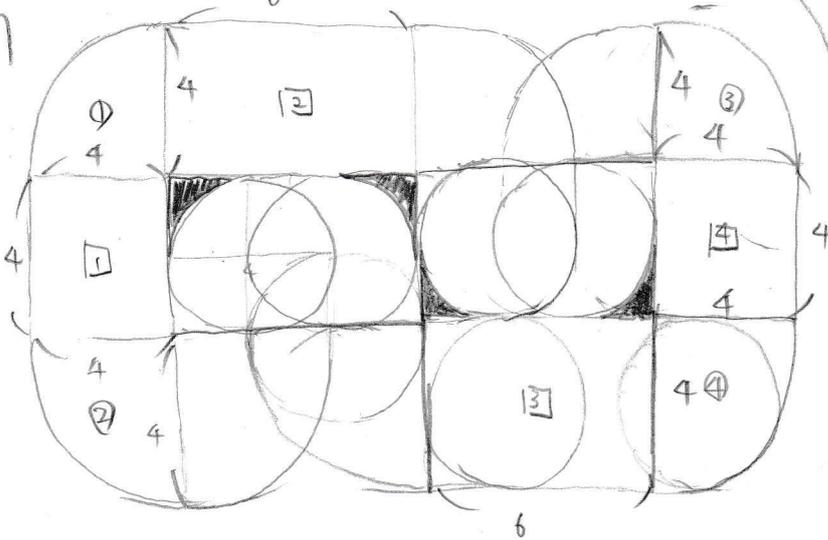
[帝京大中]

方針

図解

問題をよく読みましょう!

7x13



$$\begin{aligned} & 12 \times 4 + 8 \times 2 + 4 \times 4 \\ & = 48 + 16 + 16 \\ & = 80 \end{aligned}$$

$$\begin{aligned} & 2 \times 2 \times 3.14 \times 2 \\ & = 25.12 \end{aligned}$$

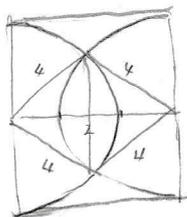
$$80 + 25.12 = 105.12$$

$$\underline{105.12 \text{ cm}^2}$$

$$1 + 2 + 3 + 4 = \frac{\pi}{4} = 50.24$$

$$1 + 2 + 3 + 4 = 4 \times 4 \times 2 + 4 \times 6 \times 2 = 32 + 48 = 80$$

$$\begin{aligned} & 2 \times 2 \times 4 + (2 \times 2 - 2 \times 2 \times 3.14 \times \frac{1}{4}) \times 2 \\ & = 16 + 1.72 = 17.72 \end{aligned}$$



ここにきて、

... 求まらない... おっかれ様... 3.14 気づく