

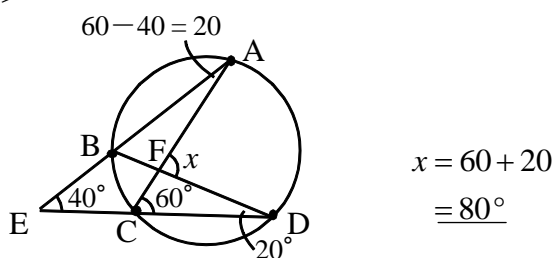
<解> PART16

$$\begin{aligned}
 \text{〔問 1〕 (与式)} &= \frac{4^2}{\sqrt[3]{8}} + 8 - 9 + \frac{1}{\sqrt{4}} \\
 &= \frac{2}{3} - 1 + \frac{1}{2} \\
 &= \frac{4-6+3}{6} \\
 &= \frac{1}{6}
 \end{aligned}$$

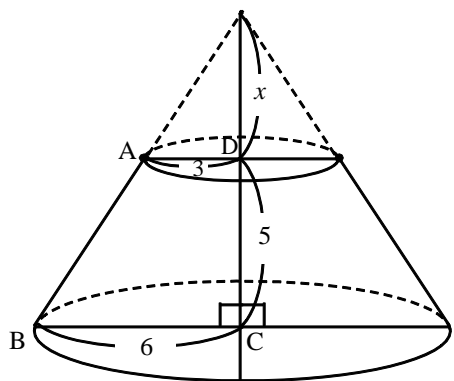
$$\begin{aligned}
 \text{〔問 2〕} \quad \left\{ \begin{array}{l} 4x+9y=1 \\ \frac{x+1}{3} - \frac{4y-5}{2} = 2 \end{array} \right. &\longrightarrow \left\{ \begin{array}{l} 4x+9y=1 \\ 2x+2-12y+15=12 \end{array} \right. \longrightarrow \left\{ \begin{array}{l} 4x+9y=1 \\ 2x-12y=-5 \end{array} \right. \longrightarrow \left\{ \begin{array}{l} 4x+9y=1 \\ 4x-24y=-10 \end{array} \right. \\
 & \hspace{20em} 33y=11 \\
 & \hspace{20em} 4x+3=1 \\
 & \hspace{20em} 4x=-2 \hspace{10em} y=\frac{1}{3} \\
 & \hspace{20em} \underline{x=-\frac{1}{2}}
 \end{aligned}$$

$$\begin{aligned}
 \text{〔問 3〕} \quad (2x-3)(x+1) &= (x-2)^2 + 3 \\
 2x^2 - x - 3 &= x^2 - 4x + 4 + 3 \\
 x^2 + 3x - 10 &= 0 \\
 (x+5)(x-2) &= 0 \\
 \underline{x = -5, 2}
 \end{aligned}$$

〔問 4〕



〔問 5〕



$$\begin{aligned}
 x : x+5 &= 3 : 6 \\
 6x &= 3x+15 \\
 3x &= 15 \\
 x &= 5 \\
 \text{体積} &= 6 \times 6 \times \pi \times 10 \times \frac{1}{3} - 3 \times 3 \times \pi \times 5 \times \frac{1}{3} \\
 &= 120\pi - 15\pi \\
 &= \underline{105\pi(\text{cm}^3)}
 \end{aligned}$$