

$$\left(\frac{a^2+b^2}{8ab}\right)^{\frac{1}{3}} = \left(\frac{a^2+b^2}{8ab}\right)^{\frac{1}{3}} = \left(\frac{a^2+b^2}{a^2b^2 \cdot 8ab}\right)^{\frac{1}{3}}$$

$$= \left(\frac{a^2+b^2}{8a^3b^3}\right)^{\frac{1}{3}} = \frac{1}{2ab} \sqrt[3]{a^2+b^2}$$

$$= \frac{\sqrt[3]{a^2+b^2}}{2ab}$$

② $x^2 + (p+1)x - 4 = 0$ $\left\langle \begin{matrix} \alpha \\ \beta \end{matrix} \right\rangle \beta = 1+5$

$$\begin{cases} \alpha + \beta = -p-1 \\ \alpha + \alpha + 5 = -p-1 \\ p = -6-2\alpha \end{cases} \quad \begin{cases} \alpha \cdot \beta = -4 \\ \alpha(1+5) = -4 \\ \alpha^2 + 5\alpha + 4 = 0 \\ (\alpha+4)(\alpha+1) = 0 \\ \alpha = -4 \vee \alpha = -1 \end{cases}$$

• $\alpha = -4 \rightarrow p = -6-2\alpha$
 $= -6-2(-4) = -6+8 = 2$

• $\alpha = -1 \rightarrow p = -6-2\alpha$
 $= -6-2(-1) = -6+2 = -4$

$p = -4$ atau $p = 2$

④ $\begin{matrix} \bar{b} \rightarrow \bar{a} \\ \bar{c} \vee \bar{b} \rightarrow \end{matrix} \begin{matrix} \bar{b} \rightarrow \bar{a} \\ \bar{c} \rightarrow \bar{b} \\ \bar{c} \rightarrow \bar{a} \end{matrix}$

⑤ $L_{\text{juvring}} = \frac{90^\circ}{360^\circ} \cdot \pi r^2 = \frac{90^\circ}{360^\circ} \cdot \frac{22}{7} \cdot 5 \cdot 5 = \frac{275}{14}$

$L_{\square} = p \cdot l = 4 \cdot 3 = 12$

$L_{\text{yg diarsir}} = L_{\text{juvring}} - L_{\square}$
 $= \frac{275}{14} - 12 = \frac{275-168}{14} = \frac{107}{14} = 7,64$

⑥ $\left| \frac{5x+2}{x-2} \right| < 2$

$\left(\frac{5x+2}{x-2} - 2\right) \left(\frac{5x+2}{x-2} + 2\right) < 0$

$\left(\frac{5x+2}{x-2}\right)^2 - 2^2 < 0$

$\frac{25x^2+20x+4}{x^2-4x+4} - 4 < 0$

$\frac{25x^2+20x+4-4x^2+16x-16}{x^2-4x+4} < 0$

$\frac{21x^2+36x-12}{x^2-4x+4} < 0$

$(7x-1)(x+2)$

$$\frac{+}{-2} \quad \frac{+}{\frac{2}{7}} \quad \frac{+}{2}$$

HP: $\{x | -2 < x < \frac{2}{7}\}$

$a = -2, b = \frac{2}{7}$

$7b - a = 7 \cdot \frac{2}{7} - (-2) = 4$

⑦ $\begin{cases} x - 3y = 11 \\ x + y = -1 \end{cases} \quad \begin{cases} px + qy - 4 = 0 \\ 2p - 3q = 4 \end{cases}$

$$\begin{aligned} x - 3y &= 11 \\ x + y &= -1 \\ \hline -4y &= 12 \\ y &= -3 \\ y = -3 &\rightarrow x + y = -1 \\ x &= 2 \end{aligned}$$

⑧ $\frac{1}{2} \cos 240 + \frac{1}{2} \cos 110 + \frac{1}{2} \cos 230 + \frac{1}{2} \cos 120 + \frac{1}{2} \cos 120 + \frac{1}{2} \cos 110$

$$= -\frac{1}{4} + \frac{1}{2} \cos 110 + \frac{1}{2} \cos 230 - \frac{1}{4} - \frac{1}{4} + \frac{1}{2} \cos 110$$

$$= -\frac{3}{4} + \frac{1}{2} (\cos 110 + (2 \cos 120 \cos 110))$$

$$= -\frac{3}{4} + \frac{1}{2} \cos 110 - \frac{1}{2} \cos 110$$

$$= -\frac{3}{4}$$

⑨

Nilai	f	x_t	d	f · d
7-11	2	9	-10	-20
12-16	3	14	-5	-15
17-21	4	19	0	0
22-26	5	24	5	25
27-31	6	29	10	60
	20			50

$\bar{x} = \bar{x}_3 + \frac{50}{20}$
 $= 19 + \frac{5}{2} = 19 + 2,5 = 21,5$

⑩ $f(x-2) = x+1$
 $g(x) = \frac{5}{x+3} - 1$

$f(x) = x+3$

$f(1) = 1+3 = 4$

$g^{-1}(x) = \frac{5}{x+1} - 3$

$g^{-1}(f(1)) = \frac{5}{4+1} - 3$

$= \frac{5}{5} - 3 = 1 - 3 = -2$