

Nama : _____

Kelas : _____

KOMPOSISI FUNGSI

Kerjakan soal berikut dengan benar

Diketahui : $f(x + 5) = \frac{4x+10}{5x-4} + 2, x \neq \frac{4}{5}$ dan $f^{-1}(2a - 13) = 7$

Ditanya : tentukan nilai a?

Jawab.

Misalkan:

$$\dots + \dots = \dots$$

$$\dots = \dots - \dots$$

$$f(x) = \frac{\dots - \dots}{\dots - \dots}$$

$$y = \frac{\dots - \dots}{\dots - \dots}$$

$$\dots (\dots - \dots) = \dots - \dots$$

$$\dots - \dots = \dots - \dots$$

$$\dots - \dots = \dots + \dots$$

$$\dots (\dots - \dots) = \dots + \dots$$

$$\dots = \frac{\dots + \dots}{\dots - \dots}$$

$$f^{-1}(x) = \frac{\dots + \dots}{\dots - \dots}$$

$$\begin{aligned}
 f(\dots\dots - \dots\dots) &= \frac{\dots\dots(\dots\dots - \dots\dots) + 10}{\dots\dots(\dots\dots - \dots\dots) - 4} + 2 \\
 &= \frac{\dots\dots - \dots\dots + 10}{\dots\dots - \dots\dots - 4} + 2 \\
 &= \frac{\dots\dots - \dots\dots}{\dots\dots - \dots\dots} + \frac{\dots(\dots\dots - \dots\dots)}{\dots\dots - \dots\dots} \\
 &= \frac{\dots\dots - \dots\dots + \dots\dots - \dots\dots}{\dots\dots - \dots\dots} \\
 &= \frac{\dots\dots - \dots\dots}{\dots\dots - \dots\dots}
 \end{aligned}$$

$$f^{-1}(2a - 13) = 7$$

$$\frac{\dots\dots + \dots\dots(\dots\dots - 13)}{\dots\dots(\dots\dots - 13) - \dots\dots} = 7$$

$$\frac{\dots\dots + \dots\dots - 377}{10a - 64 - 14} = 7$$

$$\frac{\dots\dots - \dots\dots}{10a - \dots\dots} = 7$$

$$\dots\dots - \dots\dots = 7(10a - \dots\dots)$$

$$\dots\dots - \dots\dots = 70a - \dots\dots$$

$$\dots\dots - \dots\dots = \dots\dots + \dots\dots$$

$$\dots\dots = \dots\dots$$

$$a = \dots\dots$$