



تفكيك دالة لحي مركب دالتين
اكتب فيما يلي f على شكل مركب دالتين

2 نأوي

مترين 7 سلسلة الدوال :

تنطبق

$$f(x) = -4(x-1)^2 + 3 \quad (1)$$

$$f(x) = \frac{3}{x+1} \quad (2)$$

$$f(x) = |x+4| + 2 \quad (3)$$

$$f(x) = 3 + \sqrt{1-x} \quad (4)$$

$$f(x) = (x+2)^2 + 1 \quad (1)$$

$$f(x) = 2 - \frac{3}{x-4} \quad (2)$$

$$f(x) = \left| \frac{2x}{5} - 1 \right| \quad (3)$$

$$f(x) = \sqrt{x+1} \quad (4)$$

$$f(x) = (x+2)^2 + 1$$

$$x \xrightarrow{U} x+2 \xrightarrow{V} (x+2)^2 + 1$$

* $\xrightarrow{\quad} *^2 + 1$

$$f = V \circ U$$

$$U(x) = x+2$$

$$V(x) = x^2 + 1$$

$$f(x) = 2 - \frac{3}{x-4}$$

$$x \xrightarrow{U} x-4 \xrightarrow{V} 2 - \frac{3}{x-4}$$

* $\xrightarrow{\quad} 2 - \frac{3}{*}$

$$f = V \circ U$$

$$U(x) = x-4 \quad \checkmark$$

$$V(x) = 2 - \frac{3}{x}$$

③

$$f(x) = \left| \frac{2x}{5} - 1 \right|$$

$$= \left| \frac{2}{5}x - 1 \right|$$

$$\underline{x} \xrightarrow{\varphi} \left(\frac{2}{5}x - 1 \right) \xrightarrow{U} \left| \frac{2}{5}x - 1 \right|$$

$$x \xrightarrow{\quad} |x|$$

$$f = U \circ \varphi$$

$$\begin{cases} \varphi(x) = \frac{2}{5}x - 1 \\ U(x) = |x| \end{cases}$$

$$f(x) = \sqrt{x+1}$$

$$x \xrightarrow{U} (x+1) \xrightarrow{\varphi} \sqrt{x+1}$$

$$x \xrightarrow{\quad} \sqrt{x}$$

$$f = \varphi \circ U$$

$$\begin{cases} U(x) = x+1 \\ \varphi(x) = \sqrt{x} \end{cases}$$

حل التطبيق

$$f(x) = |x+4| + 2 \quad (3)$$

$$f(x) = -4(x-1)^2 + 3 \quad (1)$$

$$f(x) = 3 + \sqrt{1-x} \quad (4)$$

$$f(x) = \frac{3}{x+1} \quad (2)$$



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$$f(x) = -4(x-1)^2 + 3 \quad (1)$$

$$x \xrightarrow{U} x-1 \xrightarrow{V} -4(x-1)^2 + 3$$

$$f = V \circ U$$

$$\begin{cases} U(x) = x-1 \\ V(x) = -4x^2 + 3 \end{cases}$$

$$f(x) = \frac{1}{x+3} \quad (2)$$

$$x \xrightarrow{U} x+3 \xrightarrow{V} \frac{1}{x+3}$$

$$f = V \circ U$$

$$\begin{cases} U(x) = x+3 \\ V(x) = \frac{1}{x} \end{cases}$$

$$f(x) = |x+4| + 2 \quad (3)$$

$$x \xrightarrow{V} x+4 \xrightarrow{U} |x+4|$$

$$f = V \circ U$$

$$\begin{cases} V(x) = x+4 \\ U(x) = |x| \end{cases}$$



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$$f(x) = 3 + \sqrt{1-x} \quad (4)$$

$$x \xrightarrow{U} 1-x \xrightarrow{V} 3 + \sqrt{1-x}$$

$$f = V \circ U$$

$$\begin{cases} U(x) = 1-x \\ V(x) = 3 + \sqrt{x} \end{cases}$$