

نارین حاتم

1,5

$$\text{If } f^{-1}(x) = \{ \} \text{ , } f(x) = 1x + k$$

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$$f(v) \rightarrow \text{اف}$$

$$f \circ f^{-1} \rightarrow f(f(x))^{-1} \rightarrow \{(x, f)\}$$

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1,5

$$a \rightarrow 3 \rightarrow x$$

$$f = \{(a, 0), (v, 1), (r, 2), (q, 4)\}$$

$$v \rightarrow f \rightarrow x$$

$$r \rightarrow v \rightarrow f$$

$$q \rightarrow q \rightarrow x$$

$$\Rightarrow f \circ f^{-1} \rightarrow f \circ \{(r, 3), (f, 4), (v, 1), (q, 4)\}$$

$$f \rightarrow v \rightarrow f$$

$$v \rightarrow r \rightarrow v$$

$$q \rightarrow q \rightarrow q$$

$$g) f \circ g^{-1} \rightarrow g^{-1} \circ f \rightarrow \{(r, 3), (q, 1), (a, 4)\}$$

$$f = \{(r, a), (f, v), (v, r), (q, 4)\}$$

$$r \rightarrow 3 \rightarrow a \rightarrow f \circ g^{-1} = \{(r, a), (a, 4)\}$$

$$q \rightarrow 1 \rightarrow x$$

$$a \rightarrow 4 \rightarrow q$$

$$\Rightarrow g^{-1} \circ f \rightarrow \{(r, 4), (v, 3), (q, 1)\}$$

$$f \rightarrow v \rightarrow x$$

$$v \rightarrow r \rightarrow 3$$

$$q \rightarrow q \rightarrow 1$$