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## FUNCTIONS

INVERSE FUNCTIONS

| A1 | A2 | A3 | A4 |
| :---: | :---: | :---: | :---: |
| $\mathrm{f}(x)=x+5$ | $\mathrm{g}(x)=x-5$ | $\mathrm{h}(x)=2 x$ | $\mathrm{f}(x)=\frac{x}{3}$ |
| Express the inverse function $\mathrm{f}^{-1}$ in the form $\mathrm{f}^{-1}(x)=$... | Express the inverse function $\mathrm{g}^{-1}$ in the form $\mathrm{g}^{-1}(x)=\ldots$ | Express the inverse function $\mathrm{h}^{-1}$ in the form $\mathrm{h}^{-1}(x)=\ldots$ | Express the inverse function $\mathrm{f}^{-1}$ in the form $\mathrm{f}^{-1}(x)=\ldots$ |
| B1 | B2 | B3 | B4 |
| $\mathrm{g}(\mathrm{x})=2 x+5$ | $\mathrm{h}(x)=\frac{x}{3}-5$ | $\mathrm{f}(x)=2(x+5)$ | $\mathrm{g}(x)=\frac{x-5}{3}$ |
| Find $\mathrm{g}^{-1}(x)$ | Find $\mathrm{h}^{-1}(x)$ | Find $\mathrm{f}^{-1}(x)$ | Find $\mathrm{g}^{-1}(x)$ |
| C1 | C2 | C3 | C4 |
| $\mathrm{h}(x)=x^{2}$ | $\mathrm{f}(x)=\sqrt{x}$ | $\mathrm{h}(x)=x^{2}-7$ | $\mathrm{f}(\mathrm{x})=(x-7)^{2}$ |
| Find $\mathrm{h}^{-1}(x)$ | Find $\mathrm{f}^{-1}(x)$ | Find $\mathrm{h}^{-1}(x)$ | Find $\mathrm{f}^{-1}(x)$ |
| D1 | D2 | D3 | D4 |
| $\mathrm{g}(x)=\sqrt{x}+5$ | $\mathrm{f}(x)=\sqrt{x-5}$ | $\mathrm{h}(x)=\frac{\sqrt{x}}{3}$ | $\mathrm{f}(x)=\sqrt{\frac{x}{3}}$ |
| Find $\mathrm{g}^{-1}(x)$ | Find $\mathrm{f}^{-1}(x)$ | Find $\mathrm{h}^{-1}(x)$ | Find $\mathrm{f}^{-1}(x)$ |

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## FUNCTIONS

INVERSE FUNCTIONS

## Ref: G238.2ㄷ․․

| A1 | A2 | A3 | A4 |
| :---: | :---: | :---: | :---: |
| $\mathrm{f}(x)=x+5 \quad \mathrm{f}^{-1}(x)=x-5$ | $\mathrm{g}(x)=x-5 \quad \mathrm{~g}^{-1}(x)=x+5$ | $\mathrm{h}(x)=2 x \quad \mathrm{~h}^{-1}(x)=\frac{x}{2}$ | $\mathrm{f}(x)=\frac{x}{3} \quad \mathrm{f}^{-1}(x)=3 x$ |
| Express the inverse function $\mathrm{f}^{-1}$ in the form $\mathrm{f}^{-1}(x)=$... | Express the inverse function $\mathrm{g}^{-1}$ in the form $\mathrm{g}^{-1}(x)=\ldots$ | Express the inverse function $\mathrm{h}^{-1}$ in the form $\mathrm{h}^{-1}(x)=\ldots$ | Express the inverse function $\mathrm{f}^{-1}$ in the form $\mathrm{f}^{-1}(x)=\ldots$ |
| B1 | B2 | B3 | B4 |
| $\mathrm{g}(\mathrm{x})=2 \mathrm{x}+5$ | $\mathrm{h}(x)=\frac{x}{3}-5$ | $\mathrm{f}(x)=2(x+5)$ | $\mathrm{g}(x)=\frac{x-5}{3}$ |
| Find $\mathrm{g}^{-1}(x)=\frac{x-5}{2}$ | Find $\mathrm{h}^{-1}(x)=3(x+5)$ | Find $\mathrm{f}^{-1}(x)=\frac{x-10}{2}$ | Find $\mathrm{g}^{-1}(x)=3 x+5$ |
| C1 | C2 | C3 | C4 |
| $\mathrm{h}(x)=x^{2}$ | $\mathrm{f}(x)=\sqrt{x}$ | $\mathrm{h}(\mathrm{x})=\mathrm{x}^{2}-7$ | $\mathrm{f}(x)=(x-7)^{2}$ |
| Find $\mathrm{h}^{-1}(x)= \pm \sqrt{x}$ | Find $\mathrm{f}^{-1}(x)=x^{2}$ | Find $\mathrm{h}^{-1}(x)= \pm \sqrt{x+7}$ | Find $\mathrm{f}^{-1}(x)=7 \pm \sqrt{x}$ |
| D1 | D2 | D3 | D4 |
| $\mathrm{g}(x)=\sqrt{x}+5$ | $\mathrm{f}(x)=\sqrt{x-5}$ | $\mathrm{h}(x)=\frac{\sqrt{x}}{3}$ | $\mathrm{f}(x)=\sqrt{\frac{x}{3}}$ |
| Find $\mathrm{g}^{-1}(x)=(x-5)^{2}$ | Find $\mathrm{f}^{-1}(x)=x^{2}+5$ | Find $\mathrm{h}^{-1}(x)=9 \mathrm{x}^{2}$ | Find $\mathrm{f}^{-1}(x)=3 x^{2}$ |

