New Maths GCSE: A7 - Inverse Functions

Name:..   Date:......................................

$f(x) = 4x - 1$

What does $f^{-1}(x)$ equal?

A $1 - 4x$ **B** $\dfrac{x+1}{4}$

C $\dfrac{1}{4x-1}$ **D** $\dfrac{x}{4} + 1$

Correct Answer: A B C D

Explanation:

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$g(x) = 3 + 2x$

What does $g^{-1}(x)$ equal?

A $\dfrac{1}{3+2x}$ **B** $\dfrac{x}{2} - 3$

C $\dfrac{x-3}{2}$ **D** $2 + 3x$

Correct Answer: A B C D

Explanation:

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$g(x) = \dfrac{x}{3} + 2$

What does $g^{-1}(x)$ equal?

A $3x - 2$ **B** $\dfrac{3}{x} + \dfrac{1}{2}$

C $3x - 6$ **D** $2 - \dfrac{x}{3}$

Correct Answer: A B C D

Explanation:

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$$h(x) = \frac{x-1}{5}$$

What does $h^{-1}(x)$ equal?

A $\quad \dfrac{5}{x-1}$ B $\quad 5x + 1$

C $\quad 5x + 5$ D $\quad 5x - 1$

Correct Answer: A B C D

Explanation:

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$$f(x) = x^2 + 16$$

What does $f^{-1}(x)$ equal?

A $\quad x - 4$ B $\quad \sqrt{x - 16}$

C $\quad \sqrt{x} - 4$ D $\quad \dfrac{1}{x^2 + 16}$

Correct Answer: A B C D

Explanation:

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$f(x) = 2x - 1$, so $f^{-1}(3) =$

(A) 1

(B) 2

(C) 3

(D) 4

Correct Answer: A B C D

Explanation:

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