MARKS

NAME:

CLASS:

FUNCTION & GRAPHS: INVERSE FUNCTIONS

1 Find the inverse $x^2 - 5$ if it exists.

    A $\sqrt{x+5}$ B $-\sqrt{x+5}$ C   *no inverse*   D $\sqrt{x-5}$

2 Find the inverse $x^2 - 5, x \geq 0$ if it exists.

    A $\sqrt{x+5}$ B $-\sqrt{x+5}$ C   *no inverse*   D $\sqrt{x-5}$

3 Find the inverse $\sqrt{2x-9}$ if it exists.

    A $f^{-1}(x) = \dfrac{x^2+9}{2}$ B $f^{-1}(x) = \dfrac{x^2-9}{2}$ C *no inverse*   D $f^{-1}(x) = \dfrac{x+9}{2}$

4 Find the inverse $x^2 + 4x + 3, x \geq -2$ if it exists.

    A $f^{-1}(x) = 2 + \sqrt{x+1}$ B $f^{-1}(x) = -2 + \sqrt{x+1}$ C *no inverse*   D $f^{-1}(x) = -2 - \sqrt{x+1}$

5 From question 4, find domain of f inverse.

    A $(-1, \infty)$ B $[-2, \infty)$ C $(-2, \infty)$ D $[-1, \infty)$

6 Given that $f(x) = \dfrac{3x-1}{x+5}, x \neq -5$. Find f^{-1}.

    A $\dfrac{5x-1}{3-x}$ B $\dfrac{-5x+1}{3+x}$ C $\dfrac{5x+1}{3-x}$ D $\dfrac{5x+1}{3+x}$

7 Given that $f(x) = 3x + 5, g(x) = \dfrac{1}{x-4}$. Find $(gf)^{-1}(x)$.

A $(gf)^{-1}(x) = \dfrac{5x-1}{3x}$ B $(gf)^{-1}(x) = \dfrac{5x-1}{3x}$ C $(gf)^{-1}(x) = \dfrac{1-x}{3x}$ D $(gf)^{-1}(x) = \dfrac{1+x}{3x}$

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