

QUIZ#03 MATH 022 SECTION 12

Name:

1. If $f(x) = 2 + \sqrt{x}$ is one to one function, then

a) $f^{-1} = (x - 2)^2$, for $x \geq 0$

b) $f^{-1} = (x - 2)^2$, for $x \geq 2$

c) $f^{-1} = x^2 - 4$, for $x \geq 0$

d) f^{-1} does not exist.

2. Which of the following must be true?

a) Even functions must be one to one functions.

b) Odd functions must be one to one functions.

c) If f is one to one function, then f^{-1} is also an one to one function.

d) If $f(1) = 2$, then $f^{-1}(1) = \frac{1}{2}$

3. If $f(x) = \sqrt{x}$, $g(x) = x + 3$, $h(x) = x^2$ and $F(x) = (\sqrt{x} + 3)^2$, then $F(x)$ written as a composition of f , g and h is:

a) $f \circ g \circ h$

b) $h \circ g \circ f$

c) $h \circ f \circ g$

d) $g \circ h \circ f$

4. Which of the following functions is an invertible function?

a) $y = 10 - x^3$

b) $y = -x^2 + 3$

c) $y = -|x + 3|$

d) $y = \sqrt{1 - x^2}$

5. Let $f = \{(1, 3), (2, 4), (5, 7)\}$. Then $(f^{-1} \circ f)(2)$ is

a) 1

b) 2

c) 3

d) 4