



Quiz 1 :

Q1) True or false:

1) $f(x) = x^{33}$ is even function (F)

$$f(-x) = (-x)^{33} = -x^{33} \neq f(x) \rightarrow \text{not even}$$

$$f(-x) = (-x)^{33} = -x^{33} = -f(x) \rightarrow \text{odd function}$$

2) $f(x) = \sqrt{x+1} + 4$ then $f(8) = 6$ (F)

$$f(8) = \sqrt{8+1} + 4 = \sqrt{9} + 4 = 3 + 4 = 7$$

3) Statement is correct for all real value $\sqrt{x^2} = |x|$

(T)

4) The set of output is y -values (T)

Q2) Choose the correct answers

1) if the graph of function symmetric about Y-axis then the function

a) even function b) odd function c) neither

2) if $f(x) = 16 + x^2$, $g(x) = x - 2$ then $(f+g)(x)$ equal

a) $18 + x$ b) $x^2 + x + 14$ c) $x - 18$

$$f+g = 16 + x^2 + x - 2 = x^2 + x + 14$$

Q3) find $f^{-1}(x)$

$$f(x) = 7x - 6$$

$$Y = 7x - 6$$

$$Y + 6 = 7x$$

$$\frac{Y + 6}{7} = x$$

$$f^{-1}(x) = \frac{Y + 6}{7}$$

Q4) find domain and range of $f(x) = \sqrt{x - 9}$

$$x - 9 \geq 0$$

$$x \geq 9$$

$$D = [9, +\infty)$$

Range:

$$x - 9 \geq 0$$

$$\sqrt{x - 9} \geq \sqrt{0}$$

$$\sqrt{x - 9} \geq 0$$

$$R = [0, +\infty)$$