

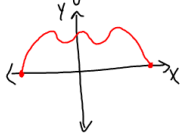
Quiz 3.2, 3.3, and 3.4

Name _____

1. Find the domain and range of the function $f(x) = \sqrt{x+2}$
2. Determine whether the equation defines y as a function of x .

$$x^2 + y^2 = 9$$

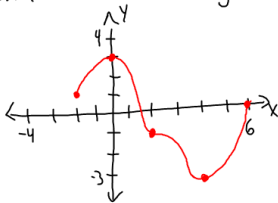
3. Determine whether the curve is the graph of a function. Use the vertical line test.



4. Determine the average rate of change of the function between the given values of x .

$$f(x) = x + x^4 \quad x = -1 \text{ to } x = 3$$

5. Given the graph determine the intervals on which the function is increasing.



6. Given $f(x) = x^2$ Describe the transformations for
 $f(x) = (x-3)^2 + 2$ (shifts right or left
shifts up or down
vertical stretch or shrink)

7. Given $f(x) = \sqrt{x}$ Write the function that would
reflect this graph over the x-axis and shift it
down 6 places.