

Calculus AB

P-3

Functions

function -

domain -

range -

Transformations

$$y = a(bx - c) + d$$

Evaluate the function. Determine its domain and range.

$$27) f(x) = \begin{cases} 2x + 1, & x < 0 \\ 2x + 2, & x \geq 0 \end{cases}$$

a) $f(-1) =$

b) $f(0) =$

c) $f(2) =$

d) $f(t^2 + 1) =$

Sketch a graph of the function and find its domain and range.

$$35) f(x) = \sqrt{9 - x^2}$$

Determine whether y is a function of x .

$$45) x^2 + y^2 = 16$$

Find the composite functions $(f \circ g)$ and $(g \circ f)$. What is the domain of each composite function? Are the two functions equal?

$$61) f(x) = x^2$$
$$g(x) = \sqrt{x}$$

Assignment:

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2-30 even

31 - 38 all, just domain and range,

41 - 54 all,

59 - 65 odd,

66, 60, 62,

97a, 97b, 98