Transformation Equations

For each of the following, name the function and the vertex (or pivot point). Then give the equation of the function after it has been shifted right by three and down 2.

11)  12)  13) 

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_ Name: \_\_\_\_\_\_\_\_\_\_\_\_\_ Name: \_\_\_\_\_\_\_\_\_\_\_\_\_

Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_ Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_ Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_

Translated Equation: Translated Equation: Translated Equation:

  

14)  15)  16) 

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_ Name: \_\_\_\_\_\_\_\_\_\_\_\_\_ Name: \_\_\_\_\_\_\_\_\_\_\_\_\_

Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_ Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_ Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_

Translated Equation: Translated Equation: Translated Equation:

  

Domain, Range, Increasing Decreasing

For each of the following, determine the domain, range, intervals to which the function is increasing and decreasing, is sign of the leading coefficient and the end behavior.

17) 18)

Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Increasing: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Increasing: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Decreasing: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Decreasing: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

As As

As As

Leading Coefficient: \_\_\_\_\_\_\_\_\_\_ Leading Coefficient: \_\_\_\_\_\_\_\_\_

Factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Possible Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Asymptotes

Find all asymptotes of the following functions.

19)  20)  21) 

22)  23)  24) 



Inequalities

Graph the following inequality:

25) 

Zeros: Find  for the following functions. Name the # of real and imaginary solutions & degree.

Remember ’s = x-intercepts = zeros = solutions = roots.

26) 27)

= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# of Real Solutions = \_\_\_\_\_ # of Real Solutions = \_\_\_\_\_

# of Imaginary Solutions = \_\_\_\_\_ # of Imaginary Solutions = \_\_\_\_\_

Degree of Function: \_\_\_\_\_\_ Degree of Function: \_\_\_\_\_\_