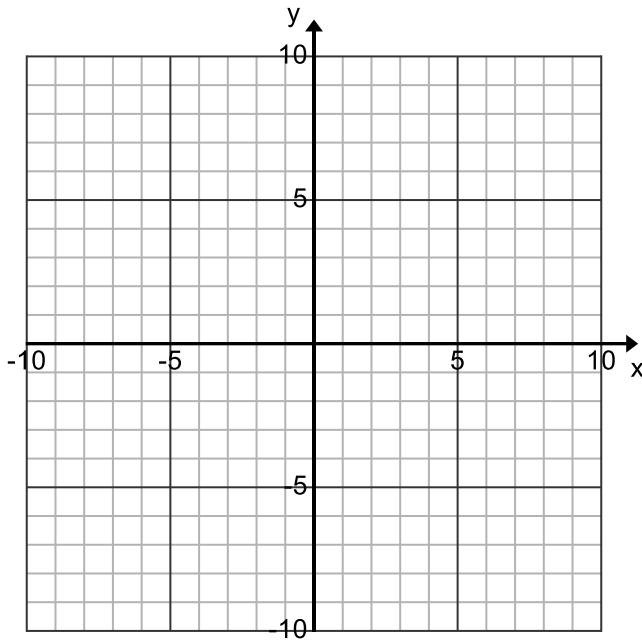


Name \_\_\_\_\_ Sample of LAST QUIZ before Break Period \_\_\_\_\_

YOU WILL NOT BE GIVEN A GRAPHING CALCULATOR for this quiz

$$f(x) = \log_5(3x - 12)$$



State the domain of this function as an inequality

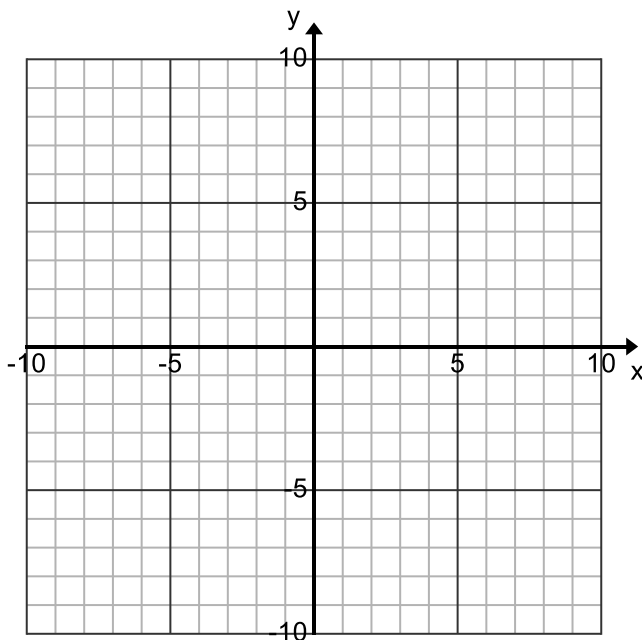
State the x intercept of this function

State the vertical asymptote of this function

State any two rational coordinates that lie on the graph of this function

Sketch a graph of this function on the provided axis

$$f(x) = \log_3(x + 6)$$



State the domain of this function as an inequality

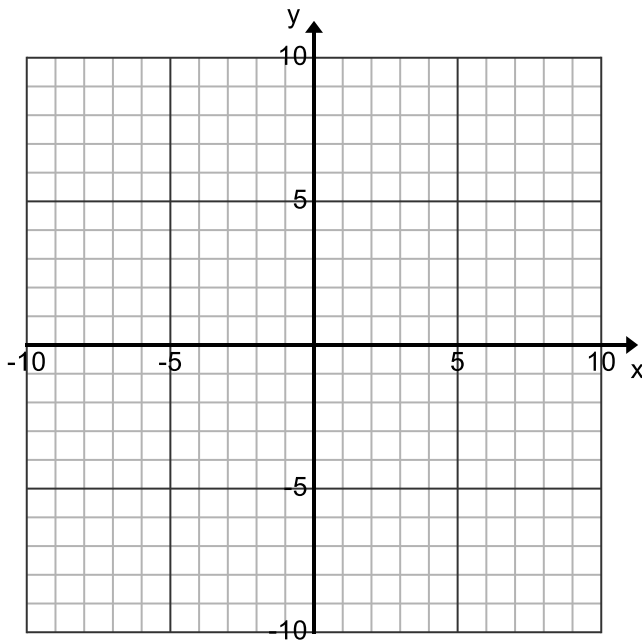
State the x intercept of this function

State the vertical asymptote of this function

State any two rational coordinates that lie on the graph of this function

Sketch a graph of this function on the provided axis

$$f(x) = \log_9(20 - 5x)$$



State the domain of this function as an inequality

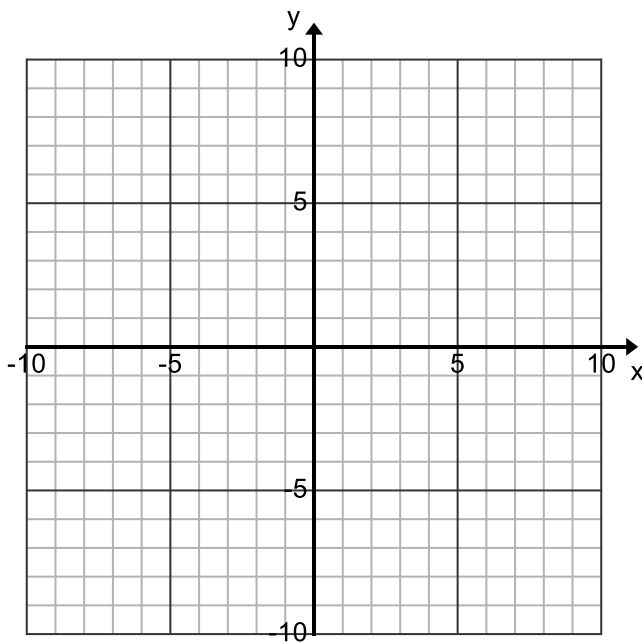
State the x intercept of this function

State the vertical asymptote of this function

State any two rational coordinates that lie on the graph of this function

Sketch a graph of this function on the provided axis

$$f(x) = \log_6(16 - 4x^2)$$



State the domain of this function as an inequality

State the x intercept of this function

State the vertical asymptote of this function

State any two rational coordinates that lie on the graph of this function

Sketch a graph of this function on the provided axis

Determine each of the solutions of these equations AS IF YOU ONLY had LOG and LN buttons on your calculators NO LOG base b button exists!

1.  $12(3)^{2x+4} + 18 = 54$

Exact answer \_\_\_\_\_ approximate answer if necessary \_\_\_\_\_

2.  $12\ln(6x - 4) - 18 = 54$

Exact answer \_\_\_\_\_ approximate answer if necessary \_\_\_\_\_

3.  $-6(10)^{3x-6} - 1 = 59$

Exact answer \_\_\_\_\_ approximate answer if necessary \_\_\_\_\_

Determine each of the solutions of these equations AS IF YOU ONLY had LOG and LN buttons on your calculators NO LOG base b button exists! (if no answer exist explain WHY NOT!)

1.  $3\log(2x + 4) + 5 = 295$

Exact answer \_\_\_\_\_ approximate answer if necessary \_\_\_\_\_

2.  $2\left(\frac{1}{2}\right)^{5x+10} - 18 = 110$

Exact answer \_\_\_\_\_ approximate answer if necessary \_\_\_\_\_

3.  $9(e)^{6-2x} + 12 = 3$

Exact answer \_\_\_\_\_ approximate answer if necessary \_\_\_\_\_