Jayden M Final Exam Review Sheet

1. Find the quotient and write the result in form:

Answer:

1. Solve for

*Identify roots:*

 has root(s) at

The constanthas to be:

The function is equal to

The quotient is equal to:

List all roots of :

1. Rewrite the following logarithms in expanded form by applying the properties of logarithms.

=

=

=

1. Consider the function .
2. The domain of the function is
3. The asymptote of the function is
4. Our function has an -intercept at
5. Sketch a graph of the function.
6. Solve for :

Give expressions to represent all solutions to the equation:

1. Solve for

Give expressions to represent all solutions to the equation:

1. In **2019**, the population of a country is **763,000**, and is growing at **3.6%** per year.
2. What will the population be in **2072?**
3. In what year will the population be double?
4. In what year will the population be triple?
5. Find the magnitude and direction angle in degrees for:

Magnitude: =

Direction angle:

1. Let be a rational functional whose numerator and denominator are polynomials of degree 2. All of the roots and asymptotes are at integer values.

The graph of is shown below. The roots are indicated with green dots. The asymptotes are indicated with dashed red lines.



1. What are the roots of
2. What is the horizontal asymptote of
3. What are the vertical asymptotes of
4. What is the domain of